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ABSTRACT

This report, the second of two follow-up studies, compares time usage of 105 infant teachers in England and Wales with the workloads of teachers surveyed in 1990 (the pilot study) and 1991. The report presents findings about the nature of the sample, working conditions, and teacher perceptions; time spent on work overall and time spent on teaching, preparation, administration, professional development, and other activities; adequacy of the time available for each subject in the national curriculum; workloads of teachers with Year 2 children in their classes; the "conscientiousness" thesis; manageability of the national curriculum at Key Stage 1; teacher workloads needed to deliver the national curriculum; provision of inservice training; and use of nonteaching assistants. The study confirms previous findings of long hours spent on work, associated primarily with teachers' personal sense of conscientiousness. Lack of time combined with large class size are seen as the main obstacles to delivering the national curriculum. The study concludes that teachers have been statutorily required to implement a broadly based curriculum whose specification has been based on mistakenly ambitious assumptions about the time available for teaching it. Possible solutions to the problem of curriculum manageability are presented. Appendices provide a copy of the questionnaire and statistical data from the study. (JDD)

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# A Third Report of Research into the [redacted]

Commissioned by

## THE ASSISTANT MASTERS AND MISTRESSES ASSOCIATION



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# C O N T E N T S

PAGE

# TEACHER TIME AND CURRICULUM MANAGEABILITY AT KEY STAGE 1

## INTRODUCTION

The data in this report extend the findings of our two previous reports on research carried out in 1990 and 1991 and published by AMMA as 1330 Days and Workloads, Achievement and Stress. This report is based on evidence about 105 infant teachers, (30 of the original 95 in 1330 Days, and 75 replacement teachers), in 61 LEAs in England and Wales. As in the previous two years, the teachers kept a record of the time they spent on work for 7 consecutive days, (including evenings and weekends), and completed a questionnaire. There were very few differences in questionnaire responses between the 30 original and the 75 replacements. The latter were younger and less experienced than the former, but otherwise there were no statistically significant differences between them. The evidence gathered therefore enables us to make comparisons with the workloads of the teachers in 1990 and 1991. We have been commissioned to gather evidence for

one more year by which time the full national curriculum will have been introduced at Key Stage One.

## NEW KINDS OF EVIDENCE IN 1992

Nearly all the data in 1992 were gathered using the same instruments and methods as in 1990 and 1991, in order to enable comparisons across the years to be made. However, there are three kinds of new data, arising from additions to the questionnaire and changes to the coding system for the record kept by the teachers. The main change is that this year teachers recorded the time that they spent on all the foundation subjects and RE separately, whereas previously they recorded the core subjects (Maths, English and Science) separately, with the other foundation subjects and RE recorded under the combined title of "Other Subjects". (See Appendix 1 for the new coding system). This change enabled us to examine the time actually spent on each subject of the national curriculum and RE separately for the first time.

Second, this year new items on the questionnaire asked about the teachers' perceptions of the adequacy of the time available for each subject of the national curriculum, the manageability of the whole curriculum, and the nature of time budgets given to teachers. (See Appendix 2, Items 1.13, 1.13a, 2.7 and 2.8).

Third, the period of data collection in 1992 was slightly different. Previously, it had been the latter half of the Spring term, when Teacher Assessments were being summarised, before the administration of SATs in the Summer term. This year it was spread across ten weeks, in a rolling programme, in the latter half of Spring term and the first half of Summer term, and therefore included time when the standard assessment tasks (SATs) were being administered. This year, therefore, we have been able to take account of time spent on SATs as well as Teacher Assessment.

We also introduced a small methodological change in that we asked the teachers, where possible, to complete their record starting on the Monday following receipt of the record sheets. They thus had less choice of recording period than previously, and this ensures that responses are more evenly spread over the data collection period.

## THE STRUCTURE OF THE REPORT

The report is in two parts. The first presents our evidence in relation to five important topics, in four sections:

1. Findings from the questionnaire about the nature of the sample, working conditions and teacher perceptions.

2. Basic data about time on work, where appropriate with brief comparisons with previous years. This covers the amount of time spent on work overall; on the five main categories, viz. Teaching, Preparation, Administration, Professional Development, and Other Activities; and on 33 sub-categories of activities within the five main categories. (See Appendix 1 for details).

2a. From 1 and 2 above, the perceived and actual adequacy of the time available for each subject in the national curriculum and R.E. and its relationship to the provision of the "balanced and broadly-based" curriculum required by the 1988 Education Reform Act.

3. The workloads of teachers with Year 2 children in their class.

4. The "conscientiousness" thesis.

The second part provides a discussion of four related policy issues arising from the findings:

1. The manageability of the national curriculum and R.E. at Key Stage 1

2. Teacher workloads needed for delivery of the national curriculum, including the workloads of Year 2 teachers.

3. The provision of In-service training.

4. The use of non-teaching assistants.

A conclusion, commenting briefly on some possible solutions to the problems of curriculum manageability is offered.

## FINDINGS

### 1. FINDINGS FROM THE QUESTIONNAIRE

#### 1a. The sample

Full details of the sample are given in Appendix 3, and the main characteristics only are provided here. Of the 105 teachers, only 3 were men. They were mainly mature, with 70% over the age of 40. (According to the 1987 Primary Staffing Survey, the national picture for all primary teachers, not just Key Stage 1 teachers, is that 60% were over the age of 40). They were also experienced, with 67% having had ten or more years' teaching experience at the infant stage. All were classteachers. Four out of ten teachers were on national standard scale, and three out of ten were on Incentive Allowance 'A'. There were 25 teachers on Incentive Allowance 'B', 2 on Incentive Allowance 'C', and 6 deputy heads. Sixty-eight of the teachers (65%) had Year 2 children, ie. children who would

be undergoing statutory assessment for the national curriculum, in their class. We refer to them as Year 2 Teachers.

As in previous years, we do not claim that the sample is random, but we believe the teachers are typical of Key Stage 1 teachers generally in that they were all classteachers and worked in a range of school size settings and types. They were from 61 LEAs, in all regions.

### 1b. Working conditions

Some 22% of classes contained over 30, and some 8% under 20, pupils, and 32% of classes were of mixed age groups. On average the teachers had five minutes a day non-contact time formally allocated to them, though 36% had none at all.

Most (60%) of the teachers spent no time with a teacher colleague in their class. Teachers were asked how much time they spent with at least one non-teaching assistant in the class: 24% had no such time, 49% had between 6 and 10 hours, while 27% had more than 10 hours a week.

The teachers were asked about the allocation of their directed time through the use of time budgets. It is perhaps surprising, given the contractual nature of directed time, that only 47% of the teachers had a time

budget as far as they knew, with 40% not having one. The remaining 13% did not know whether they had one or not. Of those who knew they had a time budget, 66% (32 teachers) had merely an annual or termly schedule of dates, staff meetings, parents' evenings, AGMs, etc. Eighteen teachers, however, had a time budget specifying the weekly times they were expected to be on school premises.

This supports the view we proposed last year that meeting the directed time requirement was left to the professional discretion of most teachers, and was mainly a matter of agreement about diary dates; it was not, except in a few schools, managed by an inflexible "clocking-in" attitude.

### 1c. Delivering the curriculum

#### Obstacles

As in previous years, the teachers perceived lack of time (64%) and large class size (31%) as the main obstacles to their implementation of the national curriculum. As in previous years also, help with assessment and recording, (21%) and intensive teaching of smaller groups (69%) were the priorities for the use of extra staff.

The percentages of teachers identifying "lack of time" and "large class size" as the main obstacles to implementing

the national curriculum in previous and current years were as follows:

| | 1990 | 1991 | 1992 |
|---|---|---|---|
| Lack of time | 73% | 64% | 64% |
| Large class size | 17% | 28% | 31% |
| Sum | 90% | 92% | 95% |

Our evidence is that lack of time and large class size are cognate problems, with large class size rather than lack of time being seen as a problem at or beyond the stage where classes exceed 28 pupils. The consistency of the combined figure of over 90% of teachers seeing these as the two main obstacles across the three years is striking and shows that these problems, first identified by us in 1990, remain the main ones for Key Stage 1 teachers.

The increased proportion of teachers seeing large class size as the main obstacle probably reflects the increase in the proportion of classes with 28 or more pupils in them. In 1990 such classes accounted for 40% of the sample classes; in 1992 the proportion was 53%.

Thus, the major practical difficulties facing infant teachers in implementing the curriculum have not only not been removed, but they are getting worse in the eyes of the teachers.

## Increases and decreases in time spent between 1991 and 1992

The teachers were asked whether the time they had spent on work since the same time last year had increased, remained the same or decreased. Only two thought it had decreased, some 64% thought it had increased, and 33% thought it had remained the same. This should be set against the record of time actually spent on work which, compared to last year, showed a slight reduction for the period when the data were collected. The implications for teacher morale are discussed in Section 5 (p.56).

Teachers were also asked whether, ignoring the task of assessment, they had found the delivery of the core and foundation subjects more or less manageable than in the previous year. Twenty-seven percent found it more manageable, 34% thought it had stayed about the same, and 36% found it less manageable.

## Perceived adequacy of time for the National Curriculum and R.E.

Teachers were asked to indicate to which of the core and foundation subjects and RE they had been able to devote adequate time in their class in 1992. They were able to indicate all subjects, or none, or as many as reflected their perceptions. Ninety-seven teachers replied, so that if they all thought that all the subjects had received adequate time, there would have been 970 responses; if

they thought that none of the subjects had had adequate time there would have been no responses. As can be seen from Table 1.1., there were 477 responses, suggesting that only about half of the curriculum was seen by the teachers overall as having had adequate time devoted to it:

TABLE 1.1 Perceived adequacy of time devoted to subjects in KS.1 teachers' classes, 1992 n = 97)

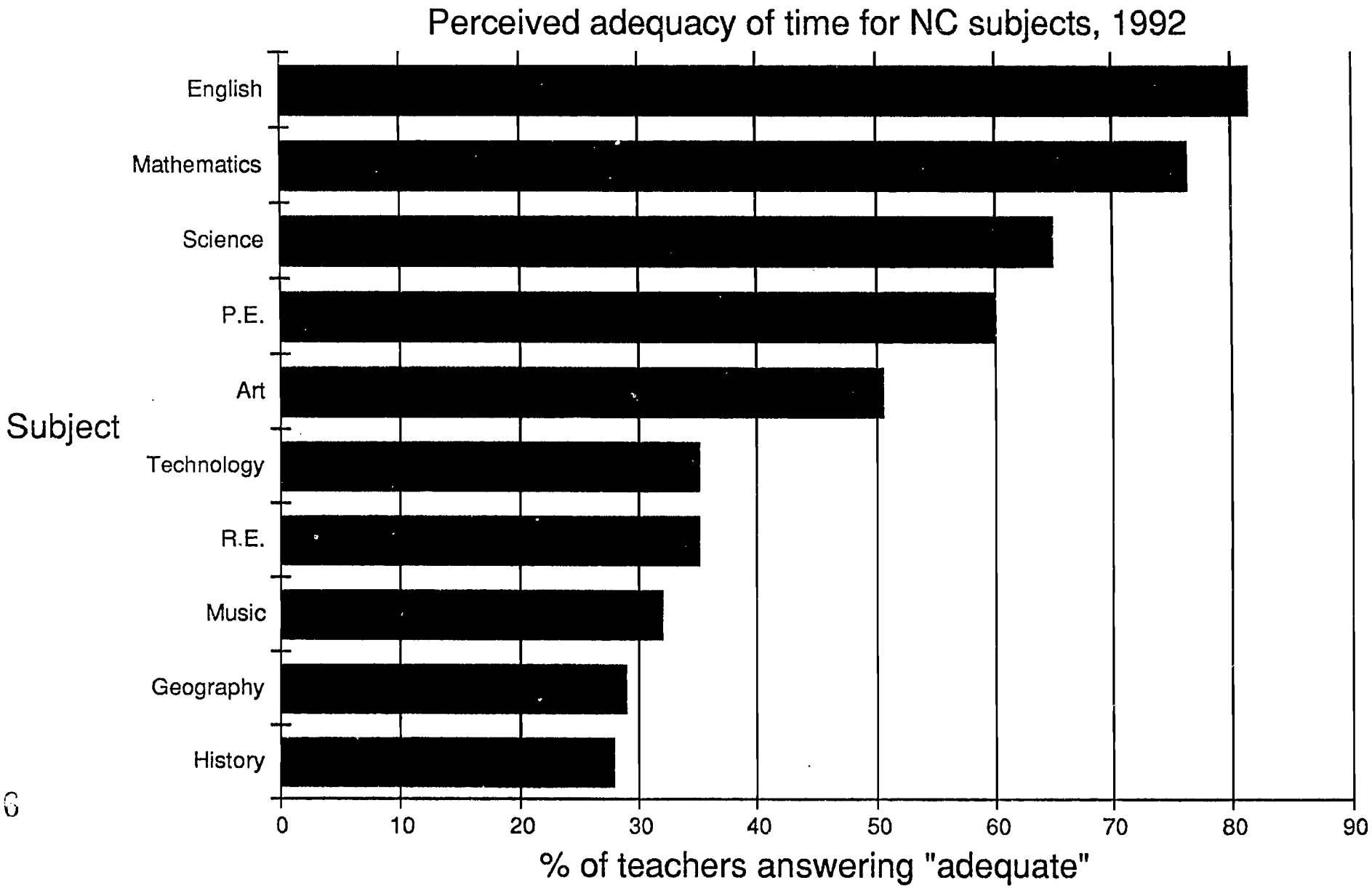
| Subject | a) No. of Responses | b) % of Responses | c) % of Teachers |
|---|---|---|---|
| English | 79 | 16.6 | 81.4 |
| Mathematics | 74 | 15.5 | 76.3 |
| Science | 63 | 13.2 | 64.9 |
| P.E. | 58 | 12.2 | 59.8 |
| Art | 49 | 10.3 | 50.5 |
| Technology | 34 | 7.1 | 35.1 |
| R.E. | 34 | 7.1 | 35.1 |
| Music | 31 | 6.5 | 32.0 |
| Geography | 28 | 5.9 | 28.9 |
| History | 27 | 5.7 | 27.8 |
| TOTAL | 477 | 100 | n.a. |

More detailed examination of Column (c) in Table 1.1 reveals the teachers' perceptions about individual subjects. In this column the figures are the percentage

of teachers thinking that the particular subject had had adequate time devoted to it in the current school year. We can present this column as a bar chart, Figure 1, (see overleaf).

The differences in perceptions about different subjects are quite striking, given that, following DES Circular 5/89, from August 1989, all subjects were expected to have "reasonable" time given to them. Teacher perceptions of what is adequate are not necessarily the only view of the reasonable time expectation, of course, but they are most important since the teachers are the people experiencing the process of delivery.

We can treat the evidence in two ways, strictly and generously. On a strict view, we might say that where less than two thirds of the teachers thought a subject had had adequate time, there is a prima facie case for saying that there is a problem. On the generous treatment, we might say that where less than half the teachers thought a subject has had adequate time, there is a problem. On the first assumption, only Maths and English, in the view of these teachers, had had adequate time in 1992; on the second assumption, English, Maths, Science, PE and Art had had adequate time. On either assumption, the same five of the ten subjects were seen as having had inadequate time. These were Technology, RE, Music, and especially Geography and History. The latter two subjects came


Perceived adequacy of time for NC subjects, 1992
English
Mathematics
Science
P.E.
Art
Technology
R.E.
Music
Geography
History
Subject
0
10
20
30
40
50
60
70
80
90
% of teachers answering "adequate"

bottom of the pile with fewer than three teachers in ten thinking that the time devoted to them was adequate.

## 2. TIME ON WORK

Table 2.1 shows the total time spent on work by the 105 teachers, expressed as an hourly mean per week. It can be seen that the teachers were working 52.4 hours per week, a slight reduction on the 1991 figure of 54.6, though still an increase on the 1990 figure of 49.6. Of the time, 40.8 hours were spent on school premises, and 11.6 hours off them, mostly at home. As last year, the range of total time spent was very great; the maximum was 70.7 hours, and the minimum was 40.6 hours per week. Appendix 4 gives fuller detail for the whole sample in a histogram, showing the spread of time spent on work overall. One in ten teachers was working over 60 hours, and 3 in 10 were working over 55 hours, per week. The distribution was closer to a normal curve this year, with last year's bipolar pattern created by the high workloads of Year 2 teachers less visible.

Table 2.1 Total Time on work

| | |
|---|---|
| Hours per week on work | 52.4 |
| Hours on work at school | 40.8 |
| Hours on work away from school | 11.6 |

The total time on work was analysed using the five main categories of Teaching, Preparation, Administration, Professional Development, and Other Activities. Table 2.2 shows the distribution of time according to these categories, with the time in each category also expressed as a percentage of the total time. (Because there is some overlap of category, as would occur if a teacher were teaching the class [Teaching] and simultaneously putting up a display [Administration], the sum of the parts is greater than the total time. The computer programme allows for this by showing time spent on each category, but avoiding double counting in arriving at the total time).

Table 2.2 Time across five main categories

| Category | Hours per week | % of total time |
|---|---|---|
| Teaching | 18.0 | 34 |
| Preparation | 14.5 | 28 |
| Administration | 13.6 | 26 |
| Professional Development | 7.2 | 14 |
| Other Activities | 3.8 | 7 |
| **TOTAL TIME** | **52.4** | **100** |

The general pattern of work shows consistency with the two previous years. Teaching accounts for only about a third

of the teachers' workload, because substantial amounts of time are spent on Preparation, Professional Development, Administration and Other Activities. The first two of these in combination amounted to 20.3 hours, more than the time spent teaching.

## 2a. Teaching

Teaching occupied 18 hours per week. This figure excludes the time when teachers were registering the pupils, moving them around the school, supervising them, or attending assembly. Table 2.3 shows how teachers made time available for the various curriculum subjects and assessment. Column (a) gives the hours per week recorded for each subject. They total more than the 18 hours spent teaching, because teachers often recorded several subjects in the same teaching sessions.

The average time spent teaching was 18.00 hours per week, and this has been used in the calculations in Column (b). The sum of hours recorded in Column (a) is 37.5 hours per week, and this has been used in calculations in Column (c). The percentages in Column (c) provide the better guide to the proportion of time spent by pupils on the curriculum, assuming that the subject teaching is spread evenly amongst a class.

Table 2.3 Teaching time by curriculum subjects

| Subject | a) Hours per week | b) % of hrs. spent teaching | c) % of sum of column (a) |
|---|---|---|---|
| English | 10.8 | 60 | 29 |
| Mathematics | 6.7 | 37 | 18 |
| Science | 3.5 | 19 | 9 |
| Art | 3.3 | 18 | 9 |
| Technology | 2.6 | 14 | 7 |
| P.E. | 1.3 | 7 | 4 |
| Geography | 0.9 | 5 | 2 |
| History | 0.9 | 5 | 2 |
| R.E. | 0.5 | 3 | 2 |
| Music | 0.5 | 3 | 1 |
| SATs | 2.5 | 14 | 7 |
| Teacher Assessment | 1.7 | 9 | 5 |
| Other teaching | 1.1 | 6 | 3 |

A number of cautions need to be expressed about the interpretation of Table 2.3. First, it represents how the teachers were spending their time, not how the pupils were spending theirs. If a teacher's class is taken for music, say, by another teacher, or if a teacher is attending a course during the school day, the teaching time recorded by any individual teacher will not represent precisely the curriculum followed by her pupils. Music in particular, which is sometimes taught by a specialist even in an infant school, might be under-represented in Table 2.3, in respect of the curriculum delivered to pupils. In general, however, given the small amounts of formally allocated non-contact time enjoyed by the teachers (25

minutes a week on average), the pattern of time spent on different subjects can be regarded as close to that offered to pupils. Second, (and this is an important point to keep in mind in considering whether the time was adequate in the discussion that follows), because of the recording method, the time recorded is the **maximum** time devoted to the particular subject; the actual time spent working on the subject would be lower.

Five findings from Table 2.3 are worth particular comment.

Adequacy of actual and perceived time on National Curriculum and R.E.

First, there is an interesting and statistically highly significant ($p<.001$, Kendall rank correlation) match between the order of subjects in Column (a) in Table 2.3 and that in Table 1.1, which showed teachers' perceptions of the adequacy of time for particular subjects.

We can present Column (c) as a bar chart in Figure 2, (see overleaf), and compare it with Figure 1 on Page 11a. If we exclude Technology, the "top" five subjects are identical, and in almost identical order. Using the generous definition of adequacy above, (ie. 50% of teachers perceived the time given as adequate), our evidence is that the teachers perceived English, Mathematics, Science, Art and PE as having had adequate time given to them, and that they had actually given most time to them. The teachers perceived Geography, History,

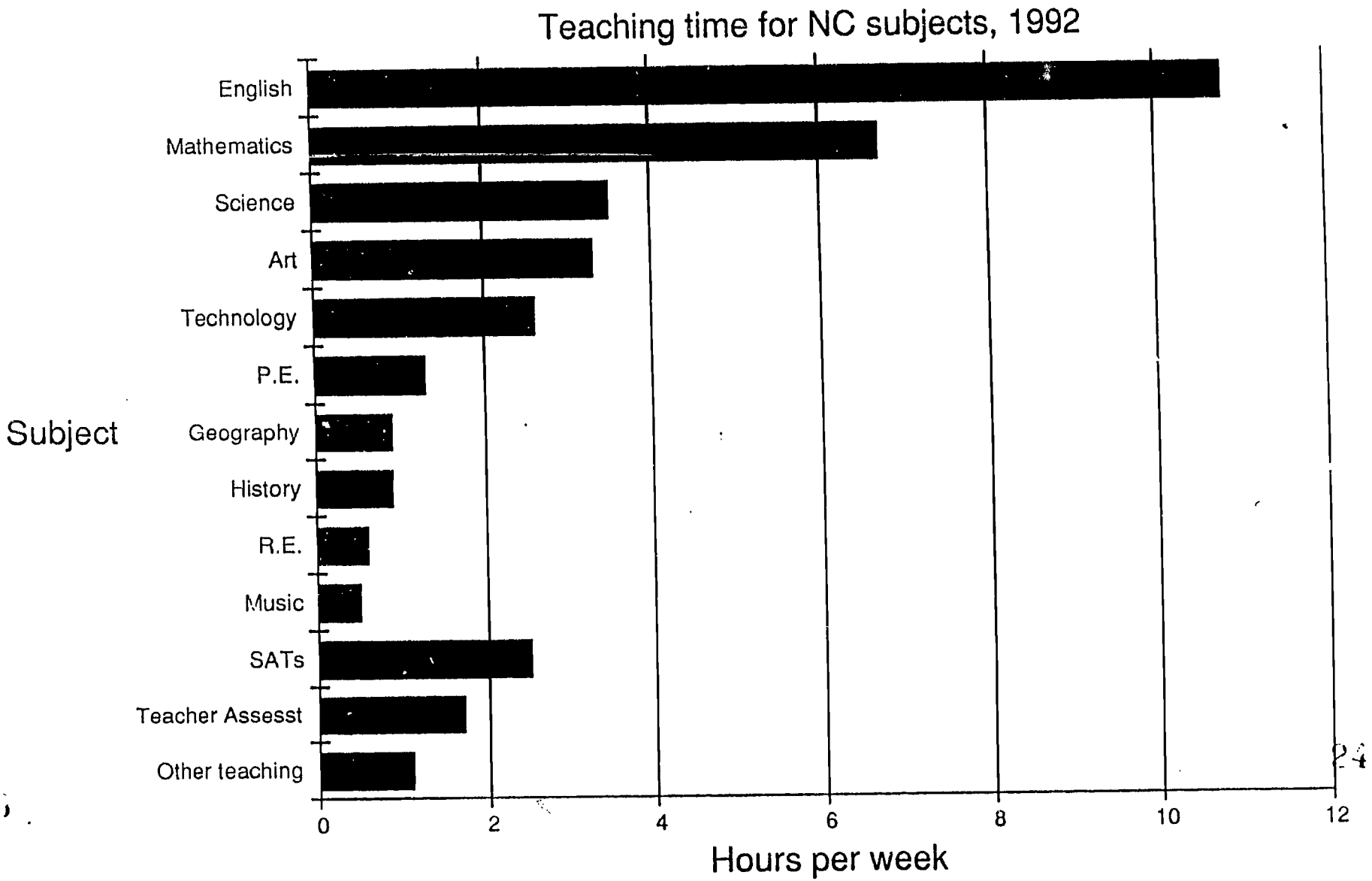

Teaching time for NC subjects, 1992
English
Mathematics
Science
Art
Technology
P.E.
Geography
History
R.E.
Music
SATs
Teacher Assesst
Other teaching
Subject
0
2
4
6
8
10
12
Hours per week

FIGURE 2

16a

RE, Music and Technology as having had inadequate time, and, except for Technology, gave the least time to them. The relatively high position of Technology in Figure 2 compared to its position in Figure 1 might be explained by the fact that Technology normally requires time-consuming practical investigations often using computers, and the time recorded, though relatively large, is still seen as inadequate. It should be remembered that in 1992, the statutory orders applied in the core and in History, Geography and Technology, but not in Art, PE and Music.

We are not suggesting that each subject needs the same amount of time for worthwhile or adequate delivery; merely that when teachers' perceptions of inadequacy match a record of relatively low time actually spent, it is strong evidence that the balanced and broadly based curriculum is not being delivered.

Concentration on the core subjects

Second, there was a heavy concentration upon the core subjects. There are two ways of calculating this time. The simple one is to note what proportion of the 18 hours given over to teaching was spent on each of the core subjects. This is given in the Column b) of Table 2.3, which shows 60%, 37%, and 19% of total time given to English, Mathematics and Science respectively. (The percentages exceed 100 because teachers often taught two or more subjects simultaneously).

The more complex analysis is to take the sum of time spent on the different subjects, (viz. 37.5 hours) and express the time spent on each as a percentage of this sum. This is done in Column c) using rounded percentages. On this analysis, 56% of the sum of Teaching time was given over to the core; 30% was given over to the other foundation subjects, RE and other subjects; and 12% was given over to Teacher Assessment and SATs. Since all SAT-time and most Teacher Assessment was focused on the core subjects, the 30% figure for the non-core proportion is unlikely to be an underestimate.

We think, irrespective of which analysis is used, that these findings show the core to be dominating the curriculum; and that for this reason, the other foundation subjects and RE were being squeezed out.

Thus, the findings support in more detail the hypothesis we advanced from the evidence gathered in the previous two years, that the balanced and broadly based curriculum was not being delivered because of the concentration on the core. Last year, calculating the time available for each non-core subject from the overall time spent on teaching outside the core, we arrived at a figure of 1.25 hours per subject a week, which we characterised as inadequate. The more detailed evidence this year shows that Geography, History, RE and probably Music fell well below that inadequate amount. In evaluating this evidence, however, it needs to be borne in mind that the data were gathered

over ten weeks, including the "SAT-time". This is about one quarter of the teaching year, and it might be assumed that practice in the rest of the year might give a somewhat different record of time. We discuss this further on pages 42-44. Against this, however, the data in Table 1.1 refer to the whole year, though they might be influenced by the teachers' most recent memories.

## Integrated and multiple focus teaching : curriculum complexity ratio

Third, Table 2.3 reflects the complexity of infant teaching, which often uses approaches involving integrated subject teaching or multiple focus teaching. The teachers arrange for the children to learn more than one subject in the same teaching session, either through small groups each learning different subjects (multiple focus teaching), or by choosing a topic or theme that incorporates material from several subjects, (integrated teaching). For this reason, the total amount of subject teaching time recorded, if the subjects are counted separately, was 37.5 hours, in a 18 hour teaching week. We constructed a measure of this complexity by dividing the sum of the subjects by the hours per week spent teaching, and called it the Curriculum Complexity Ratio (CCR). For these teachers it was 1:2.1, meaning that on average in every hour of teaching undertaken, just over two hours of subject teaching was delivered, though not necessarily to all pupils.

## Other teaching

Fourth, "Other Teaching" provided an opportunity for teachers to record times when they were teaching subjects or material that did not fit into the subject codes of the national curriculum and RE. We had not expected teachers to record much time in this code, knowing that they were under great pressure to deliver the national curriculum. The fact that Other Teaching takes up more time than several of the foundation subjects and RE needs explanation.

We see three possibilities: either the teachers did not know into which national curriculum subjects some of their lesson time fitted; or the time thus recorded was time when teachers gave low level non-cognitive activities to some of the class in order to keep them occupied whilst the teachers administered SATs; or the teachers have taken seriously the message that the whole curriculum is greater than the national curriculum and RE. The explanations are not mutually exclusive, but we think the first is the least likely, given that planning for and assessing the national curriculum was dominating teachers' thinking in the period of data collection. The second was a strategy reported to us last year in our interview study, and may have been adopted again this year.

However, infant teachers give great attention to many aspects of the curriculum that contribute to the moral and

social development of children but do not easily fit into national curriculum subjects; to teaching them aspects of safety and health-related topics, or social relationships and rules. They also sometimes simply take the children on a visit, say to a nearby park, for a range of objectives in addition to the strictly cognitive objectives. Likewise, a visit from the school crossing patrol person, domestic or occupational play in the play corner, and a story used to teach good behaviour, though common, would not fit easily into national curriculum subjects or R.E. The evidence suggests that some of our teachers have clung on to some such activities, despite seeing the shortage of time in the school day as the main obstacle to national curriculum delivery. It also suggests that auditing the curriculum in practice is much less tidy and straightforward than the neat frame of the nine subjects and RE implies, a point we explore more fully in Part 2 (Section 5.1).

Assessment

Fifth, the time devoted to Teacher Assessment and SATs is considerable. It was greater than the time spent on Geography, History, Music, R.E. and Other Teaching combined. Indirectly at least it lends support to the view that in the period concerned the assessment arrangements interfered with, or prevented, normal teaching. This interpretation is supported by the

analysis we provide about the pattern of Year 2 teachers' workloads (p.32).

## 2b. Preparation

Table 2.4 provides details of the time spent on Preparation, broken down into the three sub-categories of Lesson Planning, Marking, and Organising.

Table 2.4 Hours per week on Preparation

| Sub-Category | Hours per week |
|---|---|
| Planning | 10.5 |
| Marking | 4.9 |
| Organising | 2.1 |
| **All Preparation** | **14.5** |

It can be seen that the amount of time on Preparation (14.5 hours) is slightly reduced from last year (15.9 hours). The figure for Planning is almost identical to last year's, suggesting that the teachers are continuing to spend time becoming familiar with the routines involved in lesson planning using statutory orders. (Three subjects were new to them this year). Lesson planning

occupied the equivalent of more than two hours a weekday. There was, as might be expected given the data collection period, almost five hours a week spent marking and recording results. This is a reduction from last year, equivalent to 1.5 hours per week, and suggests some limited increase in manageability of assessment. Even so, almost 10% of their working week was taken up with marking and recording in this period.

Teaching and Preparation are, of course, intimately connected. The ratio of Teaching time to Preparation time is 1:0.8, (1:0.9 last year), which means that for every hour of teaching there is another 48 minutes of planning, marking or organising involved. It is perhaps worth noting that if time spent Teaching is added to Preparation time the equivalent of the directed hours limit is reached, before any other duties are undertaken. This suggests a reason why the use of strict time budgets for directed time is not widespread. They might be counter-productive in drawing teachers' attention to their work overload.

We were able to break down the Preparation time according to whether it was carried out during the five weekdays or the weekends, and whether it was done on school premises or off them. The details are given in Table 2.4a.

Table 2.4a Preparation : distribution at weekdays, weekends; on and off school premises

| Preparation | Hours per week |
|---|---|
| Weekdays | 11.6 |
| Weekends | 2.9 |
| On school premises | 7.5 |
| Off school premises | 7.0 |
| **ALL Preparation** | **14.5** |

The pattern here is very similar to that revealed last year.

## Class size and Preparation

We found that there was a statistically significant trend ($p < .01$) in the amount of time spent on Preparation on school premises and the size of class; the larger the class the more time spent on Preparation. Although there was a trend, there was a threshold; teachers with 28 or more pupils in the class spent on average 8.3 hours per week on Preparation at school, while those with fewer than 28 pupils spent 6.6 hours a week. Part of the explanation for this overall trend was that the teachers of the larger classes did significantly more marking and recording of results at school. The picture is complex since

significantly more Year 2 teachers had larger classes than other teachers, and the explanation for the longer time spent on Preparation was more to do with the fact that they were Year 2 than with class size itself. The larger classes might arise from a management decision to concentrate all Year 2 children under a teacher previously experienced with SATs. The policy issue arising from the emergence of "specialist" Year 2 teachers is discussed on Page 56.

### 2c. Administration

Table 2.5 provides details of the time spent on the range of activities that we have called Administration.

Table 2.5 Hours per week spent on Administration

| Sub-category | Hours per week |
|---|---|
| Parents | 1.1 |
| Displays | 1.9 |
| Supervision | 1.0 |
| Liaison | 0.8 |
| Assembly | 0.9 |
| Registration | 2.7 |
| Non-contact | 0.1 |
| Breaks (free of work) | 3.2 |
| Breaks (working) | 2.4 |
| **ALL Administration** | **13.6** |

i) Breaks (free of work and working) : 5.6 hrs/week

ii) Supervision and registration and assembly : 4.6 hrs/week

The pattern here is very similar to last year, though overall time has reduced by almost an hour. Less time was spent with parents (1.1 hours as against 1.6 hours) than last year. Two minor changes are that the time on Breaks (both 'breaks free of work' and 'working breaks') combined has increased a little due to an increase in working breaks of 0.5 hours per week. The time spent on Supervision, Registration and Assembly combined has reduced a little. We do not know the reason for the former shift, but the explanation for the latter is almost entirely to do with the behaviour of Year 2 teachers, (discussed in Section 3 below).

As in 1990, teachers who spent more time with a non-teaching assistant in the class spent more time on Supervision ($p<.01$) and on Displays. Senior staff have significantly more time on liaison ($p<.05$), more time working in breaks ($p<.05$) and more actual non-contact time free of work ($p<.01$), although the amounts of time involved were small. For example, standard scale teachers had 1.5 minutes a week and deputy heads had 32.5 minutes a week, though there were small numbers of deputies ($n = 6$).

### 2d. Professional Development

Table 2.6 gives details on the time spent on aspects of Professional Development.

Table 2.6 Time spent on Professional Development

| Sub-category | Hours per week |
|---|---|
| In-service | 1.3 |
| Travel | 0.4 |
| Non-pupil days | 0.3 |
| Meetings | 3.1 |
| Reading | 2.2 |
| ALL Professional Development | 7.2 |

The overall time was reduced from last year (7.2 hours against 8.9 hours), due mainly to reduced time on In-service training. This might follow from the fact that there were more young teachers in this year's sample. There was a slight increase in time on meetings and a reduction of time spent Reading curriculum documents, etc. (0.6 hours).

However, two other points need to be made here. First, the inclusion of Meetings and Reading curriculum documents, journals etc., in the category Professional Development is problematic. Some of the Meetings time is taken up with staff meetings and might more properly be considered as Administration. Similarly, Reading time might more sensibly be included in Preparation. If time in these two sub-categories were to be transferred to

Administration and Preparation, 2 hours a week would be left for teachers' professional development. At a time when the most fundamental changes are occurring in the professional responsibilities of teachers, two hours week out of a 52 hour working week (4% of the working time), seems inadequate, especially given that some of the two hours spent on In-service training and Travel might be voluntary and not necessarily connected with national curriculum and assessment.

We were also able to show the Professional Development time distributed across weekdays and weekends and on and off school premises. The details are given in Table 2.6a., and show a similar pattern to that last year.

Table 2.6a Time on Professional Development : distributed across weekdays, weekends; on and off school premises

| All Professional Development | Hours per week |
|---|---|
| Weekdays | 6.1 |
| Weekends | 1.1 |
| On school premises | 3.4 |
| Off school premises | 3.8 |

## 2e. Other Activities

The time spent on other activities is given in Table 2.7. The pattern is very similar to last year.

Table 2.7 Time spent on Other Activities

| Sub-category | Hours per week |
|---|---|
| Governors | 0.3 |
| Sports, orchestras, clubs, etc. | 0.9 |
| Miscellaneous | 2.7 |
| All Other Activities | 3.8 |

## 3. THE WORKLOADS OF YEAR 2 TEACHERS

Of the 105 teachers, 68 (65%) had Year 2 children in their class, and were therefore involved in administering the end-of-Key-Stage assessment arrangements, including the SATs. The proportion of Year 2 teachers was greater than in last years' sample, where 50% had Year 2 pupils.

The statistically significant differences between the workloads of Year 2 teachers and the others in this years' sample are given in the Table 3.1 overleaf. In Column (c) the direction of the difference between Year 2 teachers and others is indicated by the use of + and - signs. Where a + is used it indicates the hours Year 2 teachers spent per week more than other teachers; where a - is used, it indicates the hours Year 2 teachers spent per week less than others.

Table 3.1 Differences in workloads of Year 2 teachers and others

| (a) Workload Category | (b) Significance Level | (c) Difference in time (hrs/week) |
|---|---|---|
| 1. Total time on work (all) | <.01 | +3.0 |
| Total time on work (w'days) | <.01 | +2.4 |
| Total time on work (in school) | <.05 | +1.8 |
| 2. Teaching time (all) | <.001 | +1.8 |
| Teaching English (w'days) | <.05 | -1.6 |
| Teaching Music (w'days) | <.05 | -0.3 |
| SATs (w'days) | <.001 | +3.9 |
| 3. Preparation and Professional Development (w'days) | <.01 | +3.3 |
| Preparation (w'days) | <.05 | +2.0 |
| Marking (all) | <.01 | +2.4 |
| Marking (w'days) | <.01 | +1.9 |
| Marking (away from school) | <.05 | +1.8 |
| 4. Supervision, Registration, & Assembly (w'days) | <.05 | -0.8 |
| Parents (w'days) | <.05 | -0.6 |

There are three points that emerge from Table 3.1.

First, as last year, Year 2 teachers worked significantly longer hours overall than other teachers. The difference mainly arose from time spent during weekdays on school premises. The difference between the two groups however (3 hours a week) is considerably less than the difference between the two groups last year (6 hours per week). This suggests that either the assessment demands have been reduced, the Year 2 teachers have become more efficient

through becoming accustomed to assessing and recording, or the Year 2 teachers have consciously decided to devote less time to the demands. The other possible explanation, that the reduced difference is created by the other teachers working longer is not supported by the evidence. However, there was no difference this year between Year 2 teachers and others in respect of Teacher Assessment, which suggests that the work of assessment was being spread more generally through the whole of the Key Stage and not focused mainly on Year 2 teachers. This is a difference from last year, and might account for some of the reduced difference between Year 2 teachers and others.

Second, most strikingly and quite different from last year, Year 2 teachers spent 1.8 hours a week more on Teaching overall than other teachers (18.7 and 16.9 hours a week respectively). Time spent on SATs was included in Teaching, but in itself would not help explain the higher overall time on teaching. Part of the explanation is to be found in the fact that Year 2 teachers spent less time than others on Supervision, Registration and Assembly combined, and on parental contact. That is to say, within the timetabled day they taught more, because they handled the daily routines more quickly than other teachers. A possible interpretation is that because they were under pressure of time to deliver and assess the curriculum, they diverted time that would otherwise be spent in a less rushed manner on such routines. This was an explanation given to us in our interviews last year. The explanation

for less contact time with parents might be to do with the age of the children, (Reception and Year 1 teachers probably spend more time in informal contact with parents because the pupils are that much younger) or with the fact that Year 2 teachers would be meeting parents after the SAT period, and were therefore less likely to see them during it. A further contribution to the longer Teaching of Year 2 teachers is that some SATs were conducted in break time and recorded as SATs (ie. TT), which would mean both a longer teaching day and shorter breaks. Thirty-one weekday records, out of the 340 for the Year 2 teachers, had TT entered for some time in the break periods

In addition, the Year 2 teachers gave less time to English, Music, Maths, PE, and Art than other teachers, though only the first two subjects showed differences that were statistically different. Our evidence, therefore, suggests that the teachers were not able to incorporate the SATs into their normal teaching, as the TGAT report had hoped, but had to fit them in by reducing the time given over to some parts of the curriculum. The SATs had replaced teaching rather than being incorporated into it. The amount of teaching time "lost" because of the administration of SATs, on this analysis, is 19% of notional teaching time in Year 2 in the period in question (39 hours in the 10 weeks). Thirty-nine hours is equivalent to just under two weeks' teaching time or just under 5% of teaching time (1 hour per week) in the school year as a whole. These figures refer only to

administering SATs in classroom time, not to marking and recording outside the classroom time.

Third, Year 2 teachers spent more time on Preparation and Professional Development combined, as last year. The explanation is mainly that Year 2 teachers spent more time on all Preparation during the week, and particularly on Marking and Recording results. This would follow from the requirement to manage end-of-Key-Stage assessment and recording. The difference amounts to 2.3 hours per week in respect of Marking and Recording, though again the difference is less than that shown last year (4.8 hours).

## 4. TIME ON WORK AND TEACHERS' "CONSCIENTIOUSNESS"

As we have shown in Appendix 4, there was great variation in the amount of time overall that the teachers spent on work, even though they were all engaged in the same fundamental role, namely class teaching infant children. The range was between 40.6 and 70.7 hours. We examined the relationship between time on work overall and all the positional items (ie., age, experience, class size, mixed age groups, school size, school type, salary status, curriculum responsibility) on the questionnaire. As in the last two years, none of these variables was associated with long hours either positively or negatively. For example, teachers who had larger classes, teachers on

higher salary scales, or with more curriculum responsibilities, did not work longer than their counterparts with smaller classes, salaries or responsibilities.

As in previous years also, we tested the hypothesis that the motivating factor in long hours was personal rather than positional; that teachers' "conscientiousness" influenced how long they worked. Conscientiousness was measured by the teachers' response to an item (see Appendix 2, Item 2.5) on the questionnaire, asking them how much of their own time they thought it was reasonable for them to be expected to give to work in term-time. The answers in hours per week were as in Table 4.1:

Table 4.1 Hours considered reasonable as non-directed time expectation

| Hours | No. of Teachers | % |
|---|---|---|
| 1-5 | 24 | 22.9 |
| 6-10 | 43 | 41.0 |
| 11-15 | 28 | 26.7 |
| 16-20 | 7 | 6.7 |
| 21-25 | 3 | 2.9 |

It can be seen that, taking the mid-point in each time category as the mean, the teachers as a whole thought that it was reasonable to be expected to work about 9.3 hours a week in their own time, on top of the 33.2 hours a week of directed time, (ie., they thought a 43-hour week was reasonable). This is about 10 hours a week less than they were actually working. They were working twice as long in their own time as they thought reasonable.

Secondly, the more they thought it was reasonable for them to be expected to devote of their 'own' time (ie., the more "conscientious" they were) the more time they actually spent on work. This was true for total time on work, time spent on Preparation and Professional Development, In-service Training, Meetings away from school, Reading curriculum documents/journals, etc., mounting Displays, and on Other Activities. The more "conscientious" teachers also spent more time working in their break time.

The findings about these aspects of time on work and teachers' conscientiousness are all in the same direction, and are summarised in Table 4.2, which also gives the statistical significance levels for the trend.

Table 4.2 Significance levels (linear trend) for the relationship between time on aspects of work and "conscientiousness"

| Aspects of Work | | Significance level of linear trend |
|---|---|---|
| Time on work | (all days) | p<.01 |
| | (weekdays) | p<.001 |
| | (off school premises) | p<.05 |
| Time on Preparation and Professional Devt: | (weekdays) | p<.01 |
| | (off school premises) | p<.05 |
| Time on Professional Development: | (all days) | p<.01 |
| | (weekdays) | p<.01 |
| | (off school premises) | p<.05 |
| Reading Curriculum documents and journals: | (all days) | p<.001 |
| | (weekdays) | p<.001 |
| | (out of school) | p<.01 |
| Displays | (all days) | p<.05 |
| Working Breaks | (weekdays) | p<.01 |

Last year "Conscientiousness" was associated positively with time spent on Preparation. This year the association also existed, though the trend was weaker and did not quite reach statistical significance.

# 5. POLICY ISSUES

## 5.1 The Manageability of the 'Broad and Balanced" Curriculum at Key Stage 1

### 5.1a) Introduction

The unnerving idea that the national curriculum and R.E. might not be manageable - that the "balanced and broadly-based" curriculum of the Education Reform Act might not be deliverable in the schools as currently resourced and organised - has been acknowledged obliquely by Alexander, Rose and Woodhead's discussion paper, Curriculum Organisation and Curriculum Practice in Primary Schools, (DES, 1992), and was raised in an on-the-record speech to Cambridgeshire headteachers on the 24th September 1992 by David Pascall, Chairman of the National Curriculum Council, (Pascall, 1992). Both these papers see especial problems at Key Stage 2. Our research over the past three years, including our findings this year, has led us consistently to conclude that there are problems of whole curriculum manageability at Key Stage 1 also.

The concept of curriculum manageability is broad. It includes at least the following five dimensions:

i) Whether class teachers have adequate expertise to plan, deliver and assess the curriculum with confidence;

ii) Whether teachers have the pedagogical skills to differentiate the curriculum appropriately;

iii) Whether there is enough time available for worthwhile learning in all the foundation subjects and R.E;

iv) Whether teachers are able to assess pupils effectively without adversely affecting time available for teaching;

v) Whether classteachers' term-time workloads overall are sustainable and tolerable.

These matters may themselves be influenced by two further issues which pre-date the national currriculum, but exacerbate teachers' difficulties, viz:

vi) The size of classes;

vii) Whether the classes are of mixed or single-age composition.

Our research was not designed to examine (i) and (ii) above but it sheds some light on (iii) to (vii).

## 5.1b) Curriculum time overall and its distribution among different subjects

There are four related points here. First, Tables 1.1 (p.10) and 2.3 (p.15) provide evidence about perceived adequacy of time across the school year, and actual time spent in the ten week recording period respectively, for each foundation subject and R.E. We stress again that the highly significant ($p<.001$) rank order correlation of the subjects in the two lists is very strong evidence by itself that History, Geography, R.E., Music, and possibly Technology, were not receiving enough curriculum time to meet the reasonable time expectations.

A further perspective is derived from a comparison of the official notional time expectations for each subject with the time actually spent. The subject Working Groups creating the draft orders were given guidance about the notional percentage of time expected for each subject at each Key Stage. These were summarised in an article in Education of the 3rd April 1992. For Key Stage 1 the percentages and assumed hours per week were as in Table 5.1.

Table 5.1

| | % | Hrs. |
|---|---|---|
| Mathematics | 20% | 4.2 |
| English | 20% | 4.2 |
| Science and Technology | 12.5% | 2.6 |
| History | 7.5-10% | 1.6-2.1 |
| Geography | 7.5-10% | 1.6-2.1 |
| Art | 7.5% | 1.6 |
| Music | 5% | 1.1 |
| Physical Education | 5% | 1.1 |
| Religious Education | 5% | 1.1 |
| Other | 5-10% | 1.1-2.1 |
| All | 100% | 21 |

There are two problems with these percentages and hours. First, the total amount of time (ie., the 100%) assumed to be available for lessons (from DES Circular 7/90) was 21 hours a week, or 4.2 hours a day, for pupils. This ignores "evaporated" time in the school day, ie., when pupils are moving about the school (Transition) or being supervised at the end and beginning of lessons, and thus overstates the actual time available. The curriculum, in practice, is less tidy than the notional model allows. (A detailed analysis of this point is given below, pp.45-53).

Second, the percentages assume that it is unproblematic to allocate teaching time to single subjects within a 100% ceiling, whereas infant teachers often teach several subjects at once, a practice that tends to produce the 200% curriculum, as we have shown in Table 2.3. Nonetheless, if we put aside such difficulties we can use

the percentages as a starting point for comparison. On this treatment, if we set the figures in Column (c) and Column (a) in Table 2.3 against these notional percentages in Table 5.1, it becomes clear that English (29% or 10.8 hours), Mathematics (18% or 6.7 hours), Science and Technology (16% or 6.1 hours), Art (9% or 3.3 hours) and P.E. (4% or 1.3 hours) are approximately at, or above, the notional expectation. History (2% or 0.9 hours), Geography (2% or 0.9 hours), R.E. (2% or 0.6 hours) and Music (1% or 0.5 hours) are well below their notional figures. Other teaching (3% or 1.1 hours) is at best at the lowest limit. This analysis is of teacher time, not pupil time (and therefore Music's position especially may be better than it looks). For this reason, and for methodological reasons, we are not claiming that the actual percentages or hours are very precise measures; but this analysis, too, leaves the same subjects poorly provided for, as those in the analyses from both Table 1.1 and Table 2.3.

Third, there is currently pressure from right-wing think tanks for schools at Key Stage 1 to give greater emphasis to the reaching of reading and number. We do not dispute the need for rigorous, systematic teaching of Reading and Number. However, our evidence is that there is no shortage of time for English and Mathematics. (This is not to say that how the time is used should not be questioned; we are simply talking about the amount of time as recorded by the teachers). On the contrary, the

large amount of time given to the core subjects, and to English particularly, was contributing to the problem of curriculum manageability because it did not leave enough time for the other foundation subjects and R.E. The emphasis on the core was squeezing out reasonable time for the other subjects, and thereby rendering the delivery of the whole balanced and broadly-based curriculum, required by the 1988 Act, impossible.

The fourth point arises from the fact that the ten week period in which the data were being collected was the time over which the SATs were administered and Teacher Assessments finalised. It is reasonable to ask whether the distribution of time across the various subjects might differ somewhat from those in Table 2.3 had we collected data across the whole school year. In seeking to arrive at what are necessarily estimates about such differences, we have been able to draw on three elements in our evidence.

First, we could compare the Year 2 teachers' time distribution with that of the other teachers, who would not be engaged in the end-of-Key Stage assessment, and whose distribution of time across the subjects might be assumed to be more typical. As we have shown, (p.30), Year 2 teachers spent more time Teaching (which includes administering SATs in our coding) overall and spent less

time per week on English (91 mins., 13% of time on English), Music (18 mins., 60%), Mathematics (20 mins., 5%), P.E. (5 mins., 8%) and Art (11 mins., 6%); and more time on Science (20 mins., 10%), History (8 mins., 17%), Geography (3 mins., 7%), Technology (10 mins., 6%) and R.E. (3 mins., 10%).

The picture from this evidence is unclear for three reasons. First, only the differences in English and Music were statistically significant and the difference in English was more likely to be, in part, a consequence of the younger age of the pupils in non-Year 2 classes. Second, the Year 2 teachers were spending a little more time than other teachers on those very subjects to which, in general, least time was given, viz., History, Geography and R.E., so it would be difficult to interpret the data as meaning that more time would be given to them outside SAT-time, (or, to be more precise, in Years R and 1). Third, the difference in time on the core subjects was not consistent, Maths and English being given less, but Science more time at Year 2. This suggests that if the administration of SATs did affect time distribution it did not do so in a systematic direction.

The second element in our evidence is from last year's data, where we recorded Year 2 and other teachers in the Spring term period, but before SAT-time, which last year

occurred in the Summer term only. There was a difference then in the amount of time given to English (Year 2 teachers gave rather less time than others) but the difference did not reach statistical significance. There was no difference in the time given to all the non-core subjects. This again suggests that the proportional distribution of time in the ten-week period we collected data would not be significantly different at other times.

The third element is in another, unrelated, study with a similar methodology which we conducted across a whole school year in 1991. This showed no significant differences between Year 2 and other teachers, and none between the time on subjects across the three terms of the year.

For all these reasons we believe, despite an element of uncertainty in the evidence, that the pattern of time distribution we found in the ten weeks we collected data would have been generally similar in other parts of the year.

The obvious exception to the above analysis is that time spent on SATs (39 hours in the ten weeks) and therefore on the core subjects, might become available for the rest of the curriculum in the 28 weeks remaining in the school

year. Assuming, very unrealistically, that all this time became devoted to the non-core subjects, each would obtain almost half-an-hour more time, for those weeks. To arrive at an annual figure of time, this half-an-hour should be reduced proportionately to approximately 20 minutes extra per non-core subject. This would not raise the time available for History, Geography, R.E. or Music to the notional time expectation in Table 5.1.

### 5.1c) Evaporated Time

We referred earlier to the concept of "evaporated" time, which is time notionally available for teaching but which, in practice, is taken up with Transition (ie., moving pupils from one location to another in lesson time) and Supervision (ie., looking after pupils toward the end of a session, helping them clear up, supervising them changing for P.E. and other practical activities). An extreme example of Transition and Supervision arises when a teacher accompanies pupils to a local swimming pool for a swimming lesson. If the journeys to and from the pool take 15 minutes each, and supervising them changing before and after swimming takes 10 minutes each, a total of 50 minutes would be spent in Transition and Supervision. This is almost certainly longer than the time spent swimming, but most, if not all, of the time comes out of

the notional time available for teaching. More commonly, a teacher might spend about three minutes at the beginning and end of, say, a Music and Movement lesson, moving the children from the classroom to the hall. Following an ILEA training document, (ILEA 1989), we call this time "evaporated", because it has been spent but is invisible in the sense that it has not been officially accounted for in considerations about time available for the curriculum.

Our coding system had one code for Registration and Transition (/////) and one for Supervision (AS), including supervision outside teaching time. We could not disaggregate Registration from Transition, or Supervision in teaching time from Supervision outside it. We have therefore had to use best estimates, using the total time spent on each, and based on knowledge of normal practice in schools. In order to avoid over-estimation of evaporated time, in the discussion below we have assumed that all Supervision occurred outside teaching time, and that Registration alone amounted to 12 minutes a day on average. Since the average time on Registration and Transition was 2.7 hours per week, we have taken 1.7 hours per week, or 21 minutes a day, as being taken up with Transition. We think it will be helpful if we offer an example, for illustration, from one day's record from one teacher. It is given overleaf.

# A Working Day at Key Stage 1 - Spring Term 1992
## An illustrative case

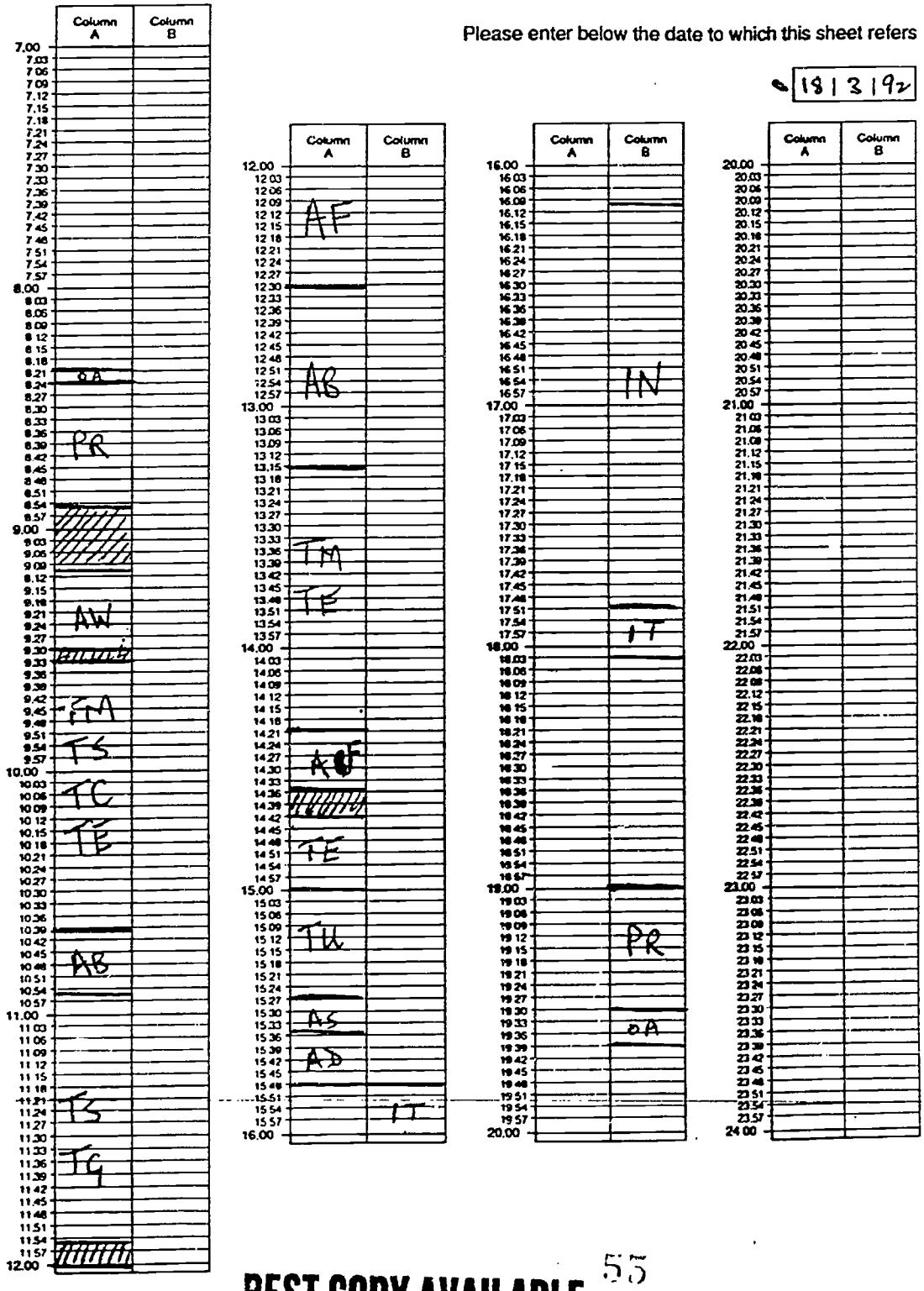
**University of Warwick — Department of Education**

**Policy Analysis Unit**

**Record of Teacher Time (ROTT)**

Please enter below the date to which this sheet refers

18/3/92



Our teacher's working day started at 08.20 and finished at 19.40, a period stretching over 11 hours. Of this time, one hour was spent in breaks free of work (AB), and there was a further period of just under an hour between 18.00 and 17.00 hours when she recorded no work, so she had approximately a 9-hour working day on this particular day.

She started work on the school premises (ie., Column 'A') at 08.20 with a brief activity that she coded as Other Activities (OA), and then did some lesson planning (PR) until the formal start of the pupils' day at 08.55 when she took the register and moved the pupils to the hall (/////) for assembly (AW). She moved them back to the classroom (/////) and began teaching a session which included Mathematics, Science, Art/Craft and English (TM, TS, TC, TE). The morning break was free of work (AB), after which she taught Science and Geography, probably a topic on weather, until 11.55 when she moved the children to the hall for lunch, and/or the playground to meet their parents (/////). Between 12.00 and 12.30 she did some work in her break (AF), and then had lunch without doing any work (AB) for 45 minutes. From 13.15 to 14.20 she taught Mathematics and English (TM, TE), after which she worked through the afternoon break (AF). Then she shepherded the children to another location (/////), perhaps to another classroom, to tell a story (TE) for just under 20 minutes. From 15.00 to 15.27 she taught Music (TU), then supervised the children (AS) until they

had been picked up by their parents. It is unclear whether this supervision was inside or outside teaching time, or a bit of both. After that she put up a display (AD) before leaving school and driving to a teachers' centre (IT, in Column 'B') for an In-service training session (IN). She drove home (IT) and did no work (Column 'A' and 'B' left blank) until she did some lesson planning (PR) for half-an-hour. Finally, she spent ten minutes on Other Activities (OA), probably filling in the coding sheet for the day.

Comment

The example illustrates the nature of the data with which we have been working, but is mainly provided to exemplify an issue about curriculum time available in the school day in practice. The school day for the pupil started at 08.55 and finished at 15.35, a total time of 6 hours 40 minutes. The breakdown of this time, with as much precision as the coding system allows, is as follows, in Table 5.2:

**Table 5.2**

| | |
|---|---|
| Teaching (all 'T' codes) | 4 hrs. 00 mins. |
| Registration, Transition, Supervision (///// + AS) | 0 hrs. 36 mins. |
| Assembly (AW) | 0 hrs. 20 mins. |
| Breaktimes (AB + AF) | 1 hr. 45 mins. |

Thus, the Teaching time at 4 hours was less than the time allocated formally to it (4.2 hours) by DES Circular 7/90, and the reason for this is that part of the teaching time in the day was taken up with Supervision and Transition that occurred within teaching time, usually at the beginning or end of lessons. Excluding the whole of the time for the first entry, for Registration, this time amounts to 16 minutes in the day. This sounds a small amount of time but, if repeated across the week, would amount to 1 hour 20 minutes, some 6% of the 21 hours per week assumed to be available for teaching. The point to be drawn here, if evaporated time on this day is typical, is that the curriculum in infant classes is less neat and tidy in practice than the clear notional time frames upon which the Subject Working Groups were asked to base their recommendations for the statutory orders. There is, at the classroom level, less time available than the working groups were led to believe, and this helps explain some part of the difficulty teachers have found in managing the collective demands of the whole national curriculum and R.E.

## The General Picture

The illustrative case above is based on one, not necessarily typical, day from one teacher. The breakdown

from the whole sample, for the four items in Table 5.2 was as follows, in Table 5.3:

**Table 5.3**

| | |
|---|---|
| Teaching (all 'T' codes) | 3.6 hrs. per day |
| Registration, Transition, Supervision (///// + AS) | 0.75 hrs. per day |
| Assembly (AW) | 0.18 hrs. per day |
| Breaktimes (AB + AF) | 1.12 hrs. per day |

The issue at stake is the average time given over to Teaching, and Registration, Transition and Supervision. The figures above show that, on average over the ten weeks, the teachers taught for less time than our illustrative case, and spent slightly more time (0.75 hours against 0.6 hours) on Registration, Transition and Supervision.

If 4.2 hours of Circular 7/90 was notionally available to our teachers for Teaching, there seems at first glance to be a discrepancy between that and our figures. But the discrepancy is explicable. If we assume 12 minutes a day (0.2 hours) taken up with Registration (and all Supervision occurred outside teaching time), it leaves 0.35 hours per day, or 1.75 hours per week, to be added to the 18 hours per week of our teachers' teaching time. On this basis, 19.75 hours is accounted for. A further 5

minutes a day is accounted for by non-contact time, adding 25 minutes (0.4 hours per week). This gives us 20.15 hours per week, with some 0.85 hours per week unaccounted for, equivalent to about ten minutes a day. This was taken up with a range of non-teaching activities sometimes carried out in teaching time, such as Liaison, In-service Training and Other Activities, that the teachers were unable to code as Teaching.

Our data, as we have said, refers to how the teachers, not the pupils, spent their time. But from the analysis above, it is possible to estimate the time that pupils spent on the whole curriculum. It would be 21 hours less the evaporated time of 1.75 hours, ie., 19.25 hours. This is 1.25 hours more than our records of teacher time account for. Even if we assume that all this time is spent by pupils on the six non-core subjects and R.E., it would add only ten minutes a week to each of them. It would not raise Geography, History, R.E. or Music to the notional time expectation in Table 5.1. A more detailed analysis is given in Appendix 5, which shows nearly a two-hour shortfall in curriculum time between what is expected and what is available.

Our best estimate of evaporated time is 1.75 hours a week, just over 8% of the 21 hours teaching time. This is equivalent to the notional time for at least one of the non-core subjects. We conclude that, in terms of time actually available to the Key Stage 1 teachers in the

classroom, as opposed to the time notionally available to them in the minds of the authors of DES Circular 7/90, there was the equivalent of at least one curriculum subject too many. It is the predictable, and predicted, consequence of a curriculum reform policy, developed piecemeal and serially in single subject committees, instead of one that started from considerations of the whole curriculum and its management in classrooms. Serial curriculum reform may work effectively for secondary schools but it has helped create an undeliverable curriculum at Key Stage 1.

## 5.2 Teacher Workloads Needed for the Delivery of the National Curriculum, including the Workloads of Year 2 Teachers

The three years' monitoring of teacher workloads we have undertaken so far showed average term-time working weeks of 49.6, 54.6 and 52.4 hours for 1990, 1991 and 1992 respectively. These figures are broadly similar to those reported in three other studies, by Lowe, NASUWT, and Coopers and Lybrand Deloitte, all conducted in 1991, which reported averages between 50 and 55 hours per term-time week. They are substantially greater than the average reported for junior school teachers by Hilsum and Cane in 1971, which was 44.5 hours. It is a reasonable conclusion that infant teachers' working hours have substantially increased since the 1970s, and are now typically something

over 50 hours a week on average in term-time. This is equivalent to a 10-hour working day during a five day week.

Two questions arise from this conclusion. First, are these hours likely to remain at these levels, and, secondly, are they unreasonable? The answer to both depends upon judgements that are still tentative, but we believe that the weight of evidence is pressing towards the answer "Yes" to both questions.

In response to both our previous reports it was argued that the long hours were likely to be a 'blip', ie. a temporary phenomenon due to the novelty of the reform programme. After the reforms, it was claimed, working hours would settle down to their previous levels. The first point is that they have not done so in three years, and the 1992 figures are higher than the 1990 figures. Secondly, if there has been a settling down effect between 1991 and 1992, it is very small - a reduction of only 2 hours or so. Thirdly, the reforms have not yet all worked their way through Key Stage 1, since new statutory orders apply for the first time in 1992/1993. Fourth, the reforms themselves continue to be subjected to further changes; the orders in Mathematics and Science have been altered; English and Technology are now due to be revised; the N.C.C. is conducting a review of the "collective impact" of all the orders; and policy on assessment and testing remains uncertain and confused.

Fifthly, we note that the Chairman of the National Curriculum Council (Pascall, 1992) has placed on record his view that concerns about overload and complexity in the curriculum, and "the long hours which dedicated teachers were having to devote to the introduction of the new curriculum", were not "just teething problems inevitable in a period of transition".

For these reasons we take the view that the workloads we and others have recorded are not temporary and, though there may be small reductions as teachers become more familiar with the orders, (or less committed to implementing them so thoroughly), term-time hours are unlikely to settle back to the 1971 levels. The fifty-hour working week seems likely to persist as the norm, and may be thought of as a necessary pre-condition for effective implementation of the national curriculum.

Whether 50+ hours a week in term-time is reasonable is also a matter of judgement. The teachers' judgement, which we can derive from Table 4.1 on p.34, is that it is not; they considered, on average, that it was reasonable for them to be expected to work about 43 hours per week, some ten hours fewer than they were actually working.

There are two separate issues here. First, whether the typical 50+ hours per week in term-time is reasonable and sustainable in itself, or whether it means that term-times are characterised by chronic overload. Second, whether

some account should be taken of the fact that teachers have 13 weeks per year out of term-time, even though it is not possible for teachers to spread their work evenly across the year. We cannot easily address the second issue since we have no data about teachers' work out of term-time. On the first issue, our judgement is that the government's policy for reform of the curriculum should not be based on the assumption that teachers would need to work very long hours in term-time. At least one third of our teachers were putting in the equivalent of an 11-hour working weekday, and we would judge that level of working to be unreasonable and not sustainable in the long run; and the effectiveness of the reform policy should not depend upon teachers continuing to work such long hours.

From the point of view of teachers' morale, it is interesting that a slight drop in overall working hours was not matched by our teachers' perceptions about their workloads. As we have shown (p.9), only two teachers perceived their working hours as having decreased since last year, whilst 97% thought they had increased or remained the same. Teachers' morale is more dependent on their perceptions of workloads than upon minor shifts in actual workloads, and if most teachers (64%) think their working hours have increased, even though they have not, the implications for morale are not good. Minor improvements in manageability of the curriculum or assessment are unlikely to have much impact upon teachers' perceptions of the unreasonableness of their workloads,

and therefore should not be expected to make much contribution to improvement in morale.

There is only one long-term solution, and that is to acknowledge the chronic and historic under-staffing of primary schools; under-staffing that now threatens to damage the implementation of the reforms in the curriculum. Ironically, the problem has been exacerbated by the infant teachers' sense of conscientiousness. Infant teachers are socialised by their training and their staffroom culture into vocational attitudes to their work. This year, as in the last two years, we found very strong evidence that "conscientiousness" was the main motivation for teachers working long hours.

They thus have become the victims, equally, of exploitation by government policy and of their own sense of obligation to pupils. If a more manageable curriculum cannot be found, the teachers themselves should attempt to shrug off their sense of conscientiousness.

Year 2 Teachers

All that has been said above applies with particular force to the Year 2 teachers who have become, by default, the work horses of the national curriculum. They had larger classes, had fewer breaks, worked longer hours and taught more than other teachers, and they bore the brunt of the

end-of-Key Stage assessment. The particular issue facing governing bodies and headteachers is whether to adopt a policy embodying the notion, "Once a Year 2 teacher, always a Year 2 teacher". The advantage from the school management point of view is that specialised skills developed through the experience of administering SATs can be built on year by year. The disadvantage from the point of view of the Year 2 teacher is that a permanently punitive workload has to be taken on. In this context we would draw attention again to the fact that the Year 2 teachers had larger classes than other teachers, possibly for reasons such as those noted above. It is possible to understand management decision-making of this kind, but difficult to justify it.

The workload issue, for all teachers, is central to the discussion of further changes to the statutory orders and to the overall curriculum review being conducted by the National Curriculum Council. Any proposed change for the future should now be tested against two simple criteria:

a) Will it add to, or reduce, infant teachers' overall workloads?

b) Will it build upon the work already done over the past three years, or will it ignore it?

If it promises to add to workloads or lead to a sense that much of the hard work of the past has been wasted, it

should be rejected, even if it be ever so desirable in principle.

## 5.3 The Provision of In-service Training

Key Stage 1 teachers are at the forefront of the government's reforms. In 1992/93 they will be the first to bring in the national curriculum orders in all subjects for a whole key stage. Yet the classteachers we studied were spending a small proportion of their working week - some 2 hours at most - on In-service training. We do not know how typical of the whole year's experience of In-service training the data collection period was, but if it is, the amount of time spent training looks insubstantial. This is especially true if, as is likely, the time spent on In-service training includes the time teachers gave over to their own professional development, not necessarily related to the national curriculum.

Part of the explanation for the small amounts of time on In-service training is that programmes of In-service training for the national curriculum often target headteachers or other senior staff, with the intention that they should 'cascade' learning from the training course into the school. Part is also to do with the problems that a classteacher's absence on a training course creates for her class. The cascade approach is not

necessarily regarded as the most effective method of In-service training, and we think that more training should target directly the teachers responsible for implementing the national curriculum, namely the classteachers. However, given the already high workloads of these teachers, we do not think it would be sensible to offer such training in "twilight" hours, or in other parts of the teachers' own time in term-time weekdays. We therefore raise again the idea, as we did in 1990, that consideration be given to paying teachers to participate in In-service training in their vacations or at weekends.

## 5.4 The Use of Non-Teaching Assistants

We have shown that teachers spent some 4.6 hours per week on Supervision and Registration and Assembly. A further 1.9 hours were spent on mounting Displays. These are important activities but they are not dependent on graduate skills or on the high levels of professional training necessary for teaching. They could be done by non-teaching assistants, and often are carried out jointly by teachers and non-teaching assistants.

It should be recalled that the major obstacle in implementing the national curriculum seen by our teachers was lack of time in the school day. If it were possible to free up some of the time currently spent on

Supervision, Registration, Assembly and Displays by teachers, the obstacle of shortage of time might be partly overcome.

However, this change would need, in addition to increased resources, a change in the culture of the schools. At present, as we have shown (p.26), teachers who had more time per week with a non-teaching assistant in the class spent more time on Supervision and on Display. The logic of the division of labour we are hinting at above, would be that non-teaching assistants would help reduce teacher time on Supervision and Displays, not lead to increases. We do not suggest that the use of non-teaching assistants is a straightforward matter, especially where very young children are involved, and it is clear that not all the time currently spent by teachers on non-teaching activities could be devolved to non-teaching assistants. But governing bodies might wish to explore the extent to which increased use of non-teaching assistants might help reduce the time spent by teachers on such activities and thus free it up for teaching and teaching-related activities, such as Preparation. Even though there will be initial difficulties in adopting such a strategy, there remains something odd about teachers seeing shortage of time as the main obstacle to their achieving cognitive objectives while simultaneously spending up to six hours a week on relatively low-level activities.

## 6. CONCLUSION : THE CURRICULUM DILEMMA AT KEY STAGE 1

We have examined the use of infant teachers' time in spring term 1992, with a very similar methodology to that employed by us in 1990 and 1991. In general, our findings confirm the previous picture of long hours on work associated primarily with teachers' personal sense of conscientiousness. Lack of time combined with large class size are more than ever seen as the main obstacles to their delivering the national curriculum.

This year, however, we have been able to show the curriculum dilemma faced by the teachers more clearly and have quantified the dilemma in the text and in Appendix 5. The dilemma is stark. The teachers have been statutorily required to implement a balanced and broadly-based curriculum whose specification has been based on mistakenly ambitious assumptions about the time available for teaching it. They cannot deliver all that they are legally required to do. The dilemma is intensified by the distinction between the core subjects and the others; the latter, with inadequate time initially, are squeezed further by the concentration of time upon the former, arising from end-of-Key Stage assessment arrangements. For conscientious teachers, the impossibility of resolving the dilemma helps explain why their work is characterised not only by long hours but also by stress and reduced

sense of achievement, as we showed last year. Although this year we have been able to provide a more detailed analysis of the unmanageability of the curriculum, we identified the problem in both 1990 and 1991. Some resolution is called for if stress and work overload at Key Stage 1 are to be reduced. We are particularly concerned lest the proper attention being given to the issue of curriculum manageability at Key Stage 2 should divert attempts to resolve the problems at Key Stage 1.

We emphasise, therefore, that we have been considering only part of the problem of curriculum manageability at Key Stage 1, the part concerned with teacher time. There are other dimensions, for example, the curricular expertise required of class teachers, the appropriateness and levels of the learning resources available, the physical facilities in the schools, and the In-service support provided for class teachers. There is also the indirect impact on curriculum of other changes such as those affecting the financing and governance of the schools, teacher appraisal and pay and conditions. The unmanageability issue is not restricted to time.

We also emphasise that our calculations and estimates upon which Appendix 5 has been based have been deliberately conservative and are likely to under-estimate time available for curriculum delivery. (For examples, our

estimate of "evaporated" time has assumed that all Supervision occurred outside teaching time; we assumed that all time devoted to SATs would be diverted to non-core subjects in the rest of the year; we have accepted the notional time for Science and Technology combined as 2.6 hours per week, though our evidence lends us to think it is unrealistic; we have accepted the notional figure for the core subjects, though our evidence suggests it should be higher; we have taken the lowest notional figure for "Other Teaching"). Even on this basis, the time required for delivering the whole curriculum is some 10% more than the time available to Key Stage 1 teachers for delivering it, as Appendix 5 illustrates.

## Towards Curriculum Manageability at Key Stage 1

It was not part of our research brief or objectives to evaluate possible solutions to problems created by the government's policy. However, our research has identified the problem and it might be helpful if we briefly outline our comments about some ways forward. In doing so, we reiterate the criteria we identified on Page 58 for judging any possible solutions:

- Will they add to, or reduce, overall workloads?

- Will they build upon, or waste, the work that Key Stage 1 teachers have already devoted to developing the national curriculum?

A preliminary point is that the curriculum will not become manageable simply by getting a better match of time available and time required. It can only become manageable in a framework where resources, especially staffing levels in the schools, enable the teachers to do their work without recourse to unreasonably long term-time hours. The pre-requisite for curriculum manageability is increased staffing - both teachers and non-teaching assistants - to provide adequate non-contact time in the school day, and to reduce the size of the larger classes.

Within such a resource framework, six possible solutions can be envisaged to match curriculum time available to time required. These are:

1. Lengthen the school day or the school year, and leave the statutory orders as they stand.

2. Abandon the 9-subject + R.E. model and the statutory orders and invent a new, more manageable model.

3. Retain the existing model and the existing orders, but identify in the orders for each subject an

essential statutory minimum and desirable but non-statutory remainder.

4. Retain the existing model and the existing orders but excise overlap and inessential material and write them all in a standardised format.

5. Retain the existing model and the existing orders, whilst keeping those in the core subjects statutory and rendering non-statutory those in the non-core subjects.

6. Reduce the number of non-core subjects that are statutory at Key Stage 1.

Of these, Solutions 1 and 2 do not meet one of the two criteria we proposed above. (Solution 1 would increase workloads and Solution 2 would jettison much of the experience of national curriculum implementation). Solution 1 would also be difficult to implement with very young children, and on our analysis would require an extension of about 10% to the teaching day or year. This is equivalent to 2 hours a week of teaching or the equivalent of 3.2 weeks extra directed time per year. In addition, as we have shown, it would assume Preparation on a 1:0.8 ratio, ie., a further 1.6 hours per week or the equivalent of 1.8 weeks of directed time per year. Besides adding to the overall workload, its effect on teacher morale would be counte productive. We have shown

that teachers work for considerable amounts of time in their breaks and that they work well beyond the hours that they consider reasonable. To increase formal teaching time would almost certainly result in reduced voluntary involvement and thus damage the policy implementation which the time increase was designed to help. It would also assume, wrongly in our view, that there was nothing arbitrary about the content of the statutory orders; that the problem lay in the length of the school day, not the length of the curriculum.

Solution 2 would damage morale also since it would be interpreted as meaning that the hard work and energy so far expended had been largely wasted. It would probably be seen as "going back to the drawing board", and would run the risk, however ideal the new model might be, of losing teachers' commitment and lacking credibility. If the first model was impracticable, what guarantee could be given with confidence to teachers that the next model would be better?

Solutions 3 and 4 have the advantage of acknowledging the problem facing the teachers, whilst attempting to retain the current conception of the broad and balanced curriculum. They would also build upon the existing experience of the teachers. There would, however, be some anxiety that Solution 3 would leave too many subjects having minimalist treatment; while Solution 4 might not lead to enough "loss" of curriculum time.

Solution 5 would run the risk of unbalancing the curriculum even more in favour of the core subjects, though if all subjects had to be taught to some extent it would provide some protection against going too far back to basics. It could allow schools to choose which element within the non-core subjects they taught.

Solution 6 would alter the notion of "breadth and balance" and would waste some of the work already put in. To be effective, more than one subject, or a subject that occupies at least 10% of the time, would have to be dropped. The least damaging subject from this point of view might be Technology. Part of its content, Information Technology, could be dropped as a separate subject and be included as a skill to be developed across the curriculum (as it is in Northern Ireland). Most of the other objectives could be realised through Science and Art without increases in time.

Our own judgement is that all the above are flawed approaches because they assume that decision-making should occur outside the schools. We think that, on the contrary, the decision-making should occur at school level. A solution to the Key Stage 1 teachers' curriculum dilemma should be found, as it will be ultimately, by the schools themselves. What would be required is fairly simple:

1. A three-year moratorium on further changes to the orders, so as to stabilise the curriculum.

2. A three-year developmental period in which schools would be obliged to implement only a fixed proportion of the orders (say 80%).

3. Decisions about which 80% should be a matter for the schools and the governing bodies.

4. Control to ensure the teaching of reading and number would be exercised, as currently, through the choice of targets to be tested by SATs.

5. Evaluation over the three-year period to monitor the degree of variation and consistency in the curriculum implemented in schools, and the impact on standards.

6. At the end of the three years, a slimmed-down version of the national curriculum for Key Stage 1, which might incorporate optional elements, could be produced, based on what the schools have actually chosen, and managed, to implement.

This proposal, which does not pre-suppose one right solution for all schools, might not be perfect, but it would transfer some real responsibility to the schools for their own curriculum, and would enable them to create the

solutions to the problems put upon them. Their solutions are more likely to be manageable than those created by yet another committee in a government-appointed quango. It would also have the considerable merit of palpably indicating that the government does, as it constantly avers, trust the professionalism of the teachers and the judgement of the governing bodies.

-o0o-

## A C K N O W L E D G E M E N T S

The data collected for this research were prepared and processed by the staff of the Warwick University Computing Services Unit, and analysed according to a special program written for us by Keith Halstead, Deputy Director of the Unit.

We should like to record our gratitute to them.

RJC/TAWP7

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# CODES FOR THE RECORD OF TEACHER TIME (KS1fu)

## TEACHING

Include activities where you are in direct contact with children, helping them to learn. There are thirteen codes:

- TM Teaching Mathematics and Number
- TE Teaching English, Language, Reading, Talking, Listening
- TS Teaching Science
- TH Teaching History
- TG Teaching Geography
- TD Teaching Design/Technology
- TP Teaching PE/Movement
- TC Teaching Art/Craft
- TU Teaching Music
- TR Teaching R.E.
- TO Teaching any subject not included in the above codes
- TT Administering SATs
- TA Assessment and/or recording for the National Curriculum carried out during teaching (excluding SATs)

Do not try to go into great detail. If there is any Mathematics going on in a given teaching session, simply enter TM. Some sessions could have several codes entered.

## PREPARATION/MARKING

Include activities in which you prepare or mark children's work but are not in direct contact with them. There are three codes:

- PR Preparing and planning for children's learning, writing lesson plans, forecasts, schemes of work, organising the classroom and resources in it, briefing classroom assistants, parent helpers, etc.
- PM Marking children's work, writing comments on it, recording results outside teaching time.
- PO Organising or collecting resources, organising visits/trips, etc.

## IN-SERVICE TRAINING

Include formal and informal activities intended to help in your professional development, such as training days, all courses (including those leading to a further qualification), conferences and workshops, etc. There are five codes:

- IN Organised courses, conferences, etc., but not non-pupil days
- IT Travel to organised courses, conferences, etc.
- ID Non-pupil days
- IS Staff meetings, informal consultation with colleagues, advisers, advisory teachers
- IR Reading of professional magazines, journals, national curriculum documentation and other sources of information

## ADMINISTRATION

Include activities concerned with the routines of school work. There are nine codes:

- AP Discussion/consultation with parents
- AD Mounting displays
- AS Supervising children before the school day begins, before break/lunch, end of school day, etc.
- AL Liaison meetings/activities with teachers in other stages, other schools, etc.
- AW Attending/participating in assembly/act of worship
- AB Lunch, coffee/tea breaks - free of work
- AF Lunch, coffee/tea breaks - not free of work
- /// Registration and collecting dinner money, and/or moving children from one location to another (eg. from class to hall, playground to class, school to swimming baths), tidying up, etc. (The code for this is simply to fill diagonal lines in the time space, thus, //////, since these are sometimes short time spaces)
- AN Non-contact time which is free of work; otherwise enter appropriate code

## OTHER ACTIVITIES

- OG Attendance at meetings of governing bodies
- OS Work with sports teams, drama productions, orchestras, clubs and all educational visits, etc.
- OA Activities that you cannot easily allocate to one of the other codes, eg. filling in this record, dealing with lengthy interruptions, and other things

Please turn over to see two examples of part of a completed record.

# THE USE OF TEACHER TIME IN PRIMARY SCHOOLS
# TEACHER QUESTIONNAIRE (fu1)

Please complete this questionnaire at the end of the one week recording period.

The questionnaire is in two sections — Section 1 asks for factual information, while Section 2 asks for your opinions or perceptions.

SECTION 1: Please tick the box to the the answer that applies to you or your work.

1.1 Sex: Male ☐ Female ☐

1.2 Age: 21–30 ☐ 31–40 ☐ 41–50 ☐ 51–60 ☐ Over 60 ☐

1.3 Including the current year as one full year, how many years experience of teaching infants have you had?

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐

11–15 ☐ 16–20 ☐ 21–25 ☐ 26–30 ☐ 31–35 ☐

Over 35 ☐

1.4 Salary Scale:

National Standard Scale ☐ Incentive Allowance A ☐
Incentive Allowance B ☐ Incentive Allowance C ☐
Incentive Allowance D ☐ Deputy Headship ☐

1.4a If you have an incentive allowance, is it:

Permanent ☐ Temporary ☐

1.5 School Type:

Infant ☐ First ☐ Junior ☐ JMI ☐ Combined 5–12 ☐ Other ☐

1.6 Number of pupils on roll in your school:

Below 51 ☐ 51–100 ☐ 101–150 ☐ 151–200 ☐
201–250 ☐ 251–300 ☐ Above 300 ☐

1.7 How many pupils are registered in your class?

Below 17 ☐ 17–20 ☐ 21–24 ☐ 25–27 ☐
28–30 ☐ 31–34 ☐ Over 34 ☐

1.8 What is the age composition of your class?

mainly single age group ☐ two age groups ☐ more than two age groups ☐

1.8a Have you any children in your class who are in Year 2 of the national curriculum?

Yes ☐ No ☐

1.9 How much non-contact time per week is officially allocated to you (whether or not you normally have it)?

None ☐ 1–30 mins. ☐ 31–60 mins. ☐
61–90 mins. ☐ 91–120 mins. ☐ Over 120 mins. ☐

1.10 How much time per week do you spend working alongside a colleague, so that there are two teachers to one class group?

None ☐ 1–30 mins. ☐ 31–60 mins. ☐
61–90 mins. ☐ 91–120 mins. ☐ Over 120 mins. ☐

1.11 How much time per week, to the nearest hour, do you spend working with at least one paid assistant (i.e. not a teacher) in your class group?

None ☐ 1–5 hrs. ☐ 6–10 hrs. ☐
11–15 hrs. ☐ 16–21 hrs. ☐ Over 21 hrs. ☐

1.12 Are you responsible for co-ordinating an area, or areas, of the curriculum (whether or not you have an incentive allowance for it)?

Yes ☐ No ☐

If YES, please indicate which area or areas you coordinate, with a tick, using the most appropriate name(s) in the following list of subjects. (E.g. if you are responsible for Language or Reading, tick English).

English ☐ Mathematics ☐ Science ☐ Technology ☐
Art ☐ History ☐ Geography ☐ Music ☐
Topic ☐ PE ☐ ESL ☐
Special needs ☐ Home-school links ☐ Other ☐

1.13 Do you have a formally specified 'time budget' for the way your directed time is used?

Yes ☐ No ☐ Don't know ☐

1.13a If YES, which of the following most nearly applies to your time budget?

- arranged mainly to specify annual or termly dates, dates for staff meetings, parents' evenings, AGMs, etc. ☐
- arranged so as to specify the weekly times you are expected to be present on school premises. ☐
- arranged on a different basis from the two above. ☐

SECTION 2: In this Section please tick the answer that most nearly reflects your opinion. Answer for yourself, not for how you think other teachers would answer.

2.1 The following list identifies six problems in teachers' working conditions. Which one do you consider is the most serious obstacle for you in implementing the national curriculum and assessment? Tick ONE only please.

Poor pay. ☐
Poorly maintained buildings. ☐
Low level of learning resources, materials or equipment. ☐
Lack of time ☐
Lack of knowledge/information ☐
Large class size ☐

2.2 Think of the overall (i.e. in both columns) entry you have made in the Record of Teacher Time concerning the total amount of time spent by you on work in one week. Do you think that the time spent by you in other weeks this term would be:

Rather similar ☐
Considerably less ☐
Considerably more ☐
Can't say/don't know? ☐

2.3 Think of the overall time you have entered as spent on INSET activities (in Column B only) in the Record of Teacher Time, using the codes IN, IT, ID, IS and IR. For the term as a whole, do you think that the time spent in these INSET activities by you in other weeks this term would be:

Rather similar ☐
Considerably less ☐
Considerably more ☐
Can't say/don't know? ☐

2.4 If you had had an extra teacher allocated to you for the equivalent of one morning per week for the current year (1991–1992) to help you implement the National Curriculum and its assessment, for what purpose would you mainly use her/him? Tick ONE only please:

To help with assessment and recording in your class ☐
To teach smaller groups in your class more intensively ☐
To give yourself non-contact time for preparation ☐
To free you to work alongside your colleagues ☐
Other (please specify one only below): ☐

.....

2.5 It has been assumed that, in order to perform their professional duties during the school day (i.e. teaching, supervision, assembly, registration, staff meetings and other 'directed' time), teachers will need to spend an unspecified amount of time preparing for such duties in their own 'non-directed' time. As a general rule, and excluding holidays, how many hours a week do you think it is reasonable for you to be expected to spend in non-directed time (i.e. mainly planning, record-keeping, report writing, organising resources, keeping up-to-date, and all INSET)?

| | | | | | |
|---|---|---|---|---|---|
| None | ☐ | 1–5 hrs. | ☐ | 6–10 hrs. | ☐ |
| 11–15 hrs. | ☐ | 16–20 hrs. | ☐ | 21–25 hrs. | ☐ |
| 26–30 hrs. | ☐ | Over 30 hrs. | ☐ | | |

2.6 Do you think that, compared to the Spring term 1991, the overall amount of time (i.e. directed and non-directed time combined) you are spending on work this term has:

Remained about the same ☐
Increased ☐
Decreased ☐
Can't say/don't know? ☐

2.7 In your opinion, to which of the following subjects have you been able to devote adequate time in your class this year? (Tick as many as appropriate)

| | | | |
|---|---|---|---|
| Art | ☐ | Mathematics | ☐ |
| English | ☐ | Physical Education | ☐ |
| History | ☐ | Religious Education | ☐ |
| Geography | ☐ | Science | ☐ |
| Technology | ☐ | Music | ☐ |

2.8 Ignoring the task of assessment, have you found the task of delivering the core and foundation subjects this year:

- more manageable than last year ☐
- about the same as last year ☐
- less manageable than last year ☐
- I can't say, I don't know ☐

2.9 Finally, thank you very much for completing this questionnaire, which is, of course, answered anonymously. You will not be able to be identified as a result of completing it. However, it would help the analysis greatly if the LEA for whom you work could be known. Please use this space to fill in the name of your LEA:

.....

.....

.....

.....

Please return this questionnaire and seven completed sheets in the envelope provided to:

Professor R J Campbell

Policy Analysis Unit

Department of Education

University of Warwick

Coventry CV4 7AL

# DETAILS OF 1992 SAMPLE

**Table Q.1 Sex of Classteachers**

| | Frequency | Percent |
|---|---|---|
| Male | 3 | 2.9 |
| Female | 100 | 95.2 |
| (Missing) | 2 | 1.9 |
| TOTAL | 105 | 100.0 |

**Table Q.2 Age of Classteachers**

| | Frequency | Percent |
|---|---|---|
| 21-30 | 14 | 13.3 |
| 31-40 | 18 | 17.1 |
| 41-50 | 56 | 53.3 |
| 51-60 | 17 | 16.2 |
| TOTAL | 105 | 100.0 |

**Table Q.4A Incentive Allowance**

| | Frequency | Percent |
|---|---|---|
| Permanent | 52 | 49.5 |
| Temporary | 11 | 10.5 |
| (Missing) | 42 | 40.0 |
| TOTAL | 105 | 100.0 |

**Table Q.5 Type of School**

| | Frequency | Percent |
|---|---|---|
| Infant | 29 | 27.6 |
| First | 23 | 21.9 |
| JMI | 42 | 40.0 |
| Combined 5-12 | 6 | 5.7 |
| Other | 4 | 3.8 |
| (Missing) | 1 | 1.0 |
| TOTAL | 105 | 100.0 |

**Table Q.6 Number of pupils on roll at school**

| | Frequency | Percent |
|---|---|---|
| Below 51 | 2 | 1.9 |
| 51-100 | 5 | 4.8 |
| 101-150 | 13 | 12.4 |
| 151-200 | 18 | 17.1 |
| 201-250 | 20 | 19.0 |
| 251-300 | 24 | 22.9 |
| Above 300 | 22 | 21.0 |
| (Missing) | 1 | 1.0 |
| TOTAL | 105 | 100.0 |

**Table Q.8 Age composition of class**

| | Frequency | Percent |
|---|---|---|
| Mainly single | 70 | 66.7 |
| Two age groups | 24 | 22.9 |
| Two-plus age groups | 9 | 8.6 |
| (Missing) | 2 | 1.9 |
| TOTAL | 105 | 100.0 |

**Table Q.8A Year 2 of National Curriculum**

| | Frequency | Percent |
|---|---|---|
| Yes | 68 | 64.8 |
| No | 36 | 34.3 |
| (Missing) | 1 | 1.0 |
| TOTAL | 105 | 100.0 |

Table Q.9 Non-contact time allocated

| | Frequency | Percent |
|---|---|---|
| None | 36 | 34.3 |
| 1-30 mins. | 31 | 29.5 |
| 31-60 mins. | 21 | 20.0 |
| 61-90 mins. | 6 | 5.7 |
| 91-120 mins. | 3 | 2.9 |
| Over 120 mins. | 3 | 2.9 |
| (Missing) | 5 | 4.8 |
| TOTAL | 105 | 100.0 |

Table Q.10 Time spent with colleague in class

| | Frequency | Percent |
|---|---|---|
| None | 63 | 60.0 |
| 1-30 mins. | 11 | 10.5 |
| 31-60 mins. | 9 | 8.6 |
| 61-90 mins. | 4 | 3.8 |
| 91-120 mins. | 4 | 3.8 |
| Over 120 mins. | 14 | 13.3 |
| (Missing) | 0 | 0 |
| TOTAL | 105 | 100.0 |

Table Q.11 Time spent with at least one paid Asst.

| | Frequency | Percent |
|---|---|---|
| None | 25 | 23.8 |
| 1-5 hours | 51 | 48.6 |
| 6-10 hours | 11 | 10.5 |
| 11-15 hours | 8 | 7.6 |
| 16-21 hours | 3 | 2.9 |
| Over 21 hours | 6 | 5.7 |
| (Missing) | 1 | 1.0 |
| TOTAL | 105 | 100.0 |

Table Q.12A Responsible for co-ordinating an area

| | Frequency | Percent |
|---|---|---|
| Yes | 101 | 96.2 |
| No | 3 | 2.9 |
| (Missing) | 1 | 1.0 |
| TOTAL | 105 | 100.0 |

Table Q.13 Time budget

| | Frequency | Percent |
|---|---|---|
| Yes | 49 | 46.7 |
| No | 42 | 40.0 |
| Don't know | 13 | 12.4 |
| (Missing) | 1 | 1.0 |
| TOTAL | 105 | 100.0 |

Table Q.12A Areas co-ordinated

| | Count | Percent Responses | Percent Teachers |
|---|---|---|---|
| English | 26 | 12.6 | 25.7 |
| Mathematics | 15 | 7.2 | 14.9 |
| Science | 18 | 8.7 | 17.8 |
| P.E. | 10 | 4.8 | 9.9 |
| Art | 9 | 4.3 | 8.9 |
| Technology | 23 | 11.1 | 22.8 |
| Music | 14 | 6.8 | 13.9 |
| Geography | 7 | 3.4 | 6.9 |
| History | 10 | 4.8 | 9.9 |
| Topic | 2 | 1.0 | 2.0 |
| E.S.L | 1 | 0.5 | 1.0 |
| Special Needs | 9 | 4.3 | 8.9 |
| Home Links | 12 | 5.8 | 11.9 |
| Other | 51 | 24.6 | 50.5 |
| TOTAL (4 missing cases) | 207 | 100.0 | 205.0 |

Table Q.13A Nature of Budget

| | Count | Percent Responses | Percent Teachers |
|---|---|---|---|
| Annual/Termly basis | 32 | 57.1 | 66.7 |
| Weekly basis | 18 | 32.1 | 37.5 |
| Other | 6 | 10.7 | 12.5 |
| TOTAL (57 missing cases) | 56 | 100.0 | 116.7 |

Table Q.P1 Adverse effects of National Curriculum

| | Count | Percent Responses | Percent Teachers |
|---|---|---|---|
| Poor resources | 5 | 4.5 | 4.8 |
| Lack of time | 71 | 64.0 | 67.6 |
| Lack of knowledge | 1 | 0.9 | 1.0 |
| Large class size | 34 | 30.6 | 32.4 |
| TOTAL | 111 | 100.0 | 105.7 |

Table Q.P2 Time spent this week compared with average

| | Frequency | Percent |
|---|---|---|
| Rather similar | 86 | 81.9 |
| Consider more | 18 | 17.1 |
| Can't say/don't know | 1 | 1.0 |
| TOTAL | 105 | 100.0 |

Table Q.P3 Time in INSET in other weeks of term

| | Frequency | Percent |
|---|---|---|
| Rather similar | 51 | 48.6 |
| Consider less | 12 | 11.4 |
| Consider more | 31 | 29.5 |
| Can't say/don't know | 11 | 10.5 |
| TOTAL | 105 | 100.0 |

Table Q.P4 Most important professional priority

| | Frequency | Percent |
|---|---|---|
| Help with assessment | 21 | 20.0 |
| Teaching small group | 70 | 66.7 |
| Having more preparation | 4 | 3.8 |
| More time with colleagues | 6 | 5.7 |
| Other | 1 | 1.0 |
| (Missing) | 3 | 2.9 |
| TOTAL | 105 | 100.0 |

Table Q.P5 Reasonable hours per week

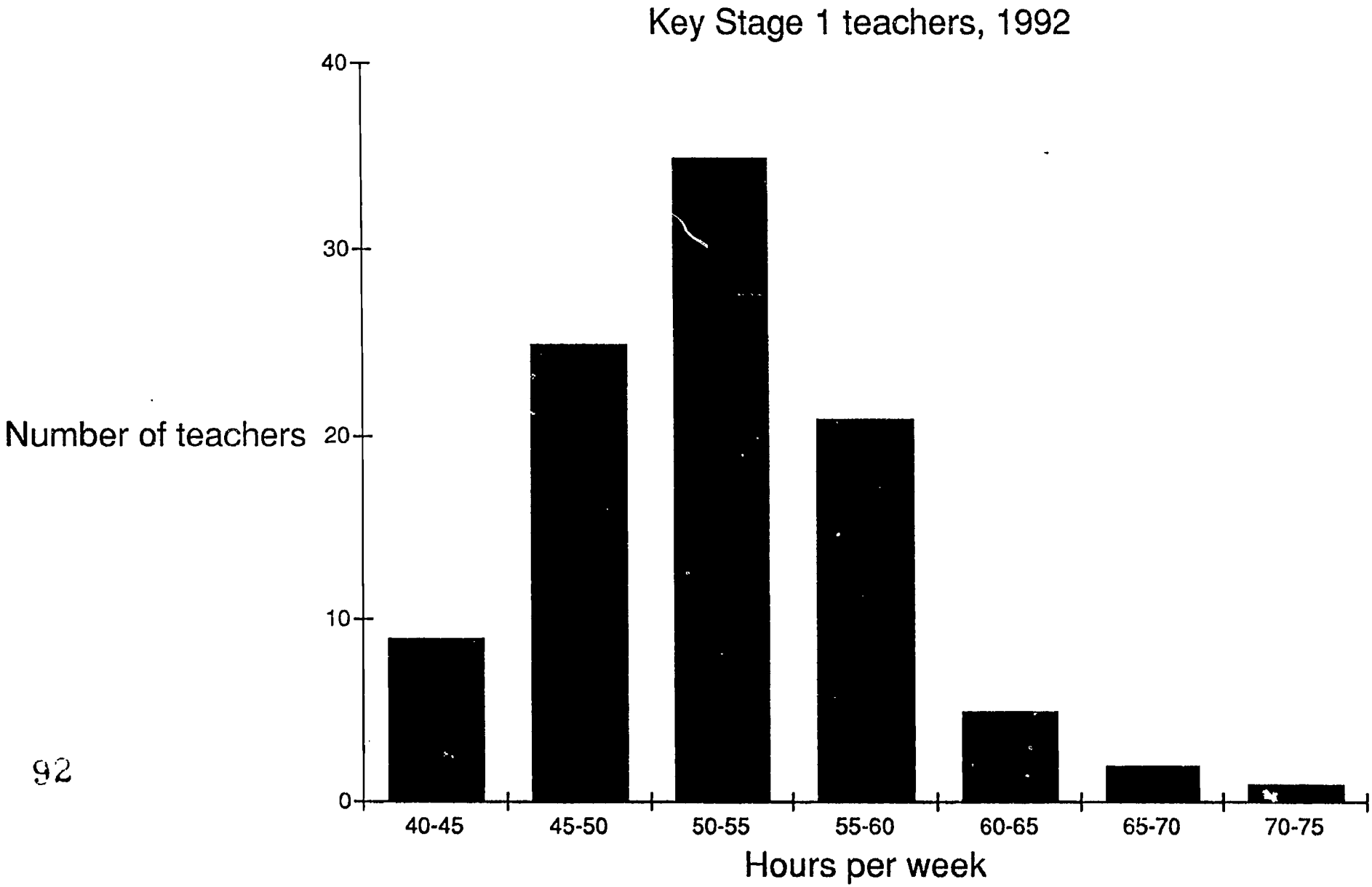
| | Frequency | Percent |
|---|---|---|
| 1 - 5 | 24 | 22.9 |
| 6 - 10 | 43 | 41.0 |
| 11 - 15 | 28 | 26.7 |
| 16 - 20 | 7 | 6.7 |
| 21 - 25 | 3 | 2.9 |
| TOTAL | 105 | 100.0 |

Table Q.P6 Time compared with Spring 1991

| | Frequency | Percent |
|---|---|---|
| Remained the same | 35 | 33.3 |
| Increased | 67 | 63.8 |
| Decreased | 2 | 1.9 |
| Cant'say/don't know | 1 | 1.0 |
| TOTAL | 105 | 100.0 |

Table Q.P8 Manageability of delivering N.C.

| | Frequency | Percent |
|---|---|---|
| More manageable | 28 | 26.7 |
| Stayed the same | 35 | 33.3 |
| Less manageable | 37 | 35.2 |
| Can't say/don't know | 3 | 2.9 |
| (Missing) | 2 | 1.9 |
| TOTAL | 105 | 100.0 |


Key Stage 1 teachers, 1992
Number of teachers
40
30
20
10
0
40-45
45-50
50-55
55-60
60-65
65-70
70-75
Hours per week

## AN ESTIMATE OF THE DISCREPANCY BETWEEN TIME EXPECTED AND TIME AVAILABLE FOR THE WHOLE CURRICULUM AT KEY STAGE 1

The following calculations are based on the notional time expectations in Table 5.1 (p.40) and on two assumptions raised in the text, viz., 'evaporated time' is typically 1.75 hours per week and Other Teaching takes 1.1 hours only.

1. Weekly time available to pupils for the whole curriculum = 21.00 hrs.

2. Time taken up by:

   a) Core subjects + Technology = 11.00 hrs.
   b) Evaporated time = 1.75 hrs.
   c) Other Teaching = 1.10 hrs.

   Sum of 2a, b and c = 13.85 hrs.

3. Time available for non-core subjects (excluding Technology) and R.E. is equal to weekly time less time on 2a, b and c = 21.0 - 13.85 hrs. = 7.15 hrs.

4. Notional time expectations for:

   a) History & Geography = 2.1 x 2 = 4.2 hrs.
   b) Art = 1.6 x 1 = 1.6 hrs.
   c) Music, PE & RE = 1.1 x 3 = 3.3 hrs

   Sum of 4a, b and c = 9.10 hrs.

Thus, time expected for non-core subjects (excluding Technology) and R.E. exceeds the time available for them by about 2 hours

COMMENTARY

a) We acknowledge that there is a spurious accuracy in our calculations, but the 2 hours discrepancy is very great. It is almost 10% of curriculum time, ie., equivalent to a whole-school session (a morning or afternoon) every week.

b) The incorporation of Technology with Science in Table 5.1 disguises a further time problem. It is unlikely, given the hours recorded (Science 3.5, Technology 2.6), and the percentages of curriculum time given over to them (Science 9%, Technology 7%), by our teachers, that the notional time expectation for both combined, of 2.6 hours (12%), is realistic. So the time discrepancy in practice may be greater than indicated.

c) The calculation at 3. above shows the time available for the non-core subjects (excluding Technology) and R.E. as 7.15 hours, or 34% of the time available for the whole curriculum. This is very close to the proportion (32%) of time we estimated for the non-core subjects (excluding Technology) and R.E., and SATs and Teacher Assessment, in Column (c) of Table 2.3 (p.15).

On the other hand, our estimate in Table 2.3, Column (c), of the proportion of time available for the core subjects + Technology was 63%. This is some 10% above the notional time expectation for the core and Technology in Table 5.1. At (a) above, we have shown that 10% is the discrepancy between time available for the non-core subjects (excluding Technology and R.E) and supports our claim in the text (p.41) that the time on the core was squeezing out time on the other subjects.

d) The above calculations support the evidence from the questionnaire responses, which show 64% of the teachers saying that "lack of time" was the main obstacle to implementing the national curriculum. The calculations show that they are right, in a very literal sense.